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ABSTRACT

A survey of the educational policy and system of West Germany is presented. The federal government and 11 federal states (Laender) operate in conjunction, creating an educational policy that occurs on two levels. A brief historical sketch is followed by a general description of educational policy, planning, and research in the context of the federal structure. A survey of the educational system from the elementary schools to higher education follows. Finally, attention is directed to current educational policy issues. The appendix contains: 29 tables and schedules of lessons; nine theses and counter-theses on the 1978 controversy over educational objectives; and addresses of the Laender Ministries of Education, the Federal Ministry of Education and Science, the Secretariat of the Conference of Ministers of Education, and the Federal-Laender Commission for Educational Planning and the Advancement of Research. An extensive bibliography is included. (LMI)

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Christoph Führ

Schools and Institutions of Higher Education in the Federal Republic of Germany

A Survey of Educational Policy
and the Educational System

INTER NATIONES BONN 1989

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Publications (apart from those mentioned in section II 1 of the bibliography) include: *Schulversuche 1965/66*, 2 vols., Weinheim 1967, 2nd ed. 1968; *Das k.u.k. Armeeoberkommando und die Innenpolitik in Österreich 1914–1917*, Vienna 1968; *Zur Schulpolitik der Weimarer Republik*, Weinheim 1970, 2nd ed. 1972. Numerous essays on and reviews of educational policy and the history of education. Editor together with Prof. Dr. Wolfgang Mitter of "Studien und Dokumentation zur deutschen Bildungsgeschichte", Böhlau Verlag, Cologne (around 40 vols).

Preface

We all know the saying: "Tell me whose company you keep, and I'll tell you who you are." If that were transposed to our theme, it would run: "Tell me how things are with the educational system, and I'll tell you what's up with state and society." Anyone who describes a country's educational system thus cannot avoid setting their sights on the overall situation. All issues, even supposedly innocuous "technical" matters – such as the recent controversy in Hesse over the role of primary schools in assessing pupils who want to move on to *Realschule* or *Gymnasium* –, have a political background, and in this country quickly become a profession of faith. One is almost tempted to say that, in a post-Christian age, education and educational policy have become one of our time's great "substitute religions". That also explains the violence of educational disputes, which easily become "wars of religion", and the certainties of belief entailed in the way some people expect salvation from the comprehensive school and new educational guidelines – and others from a more formalised school system with emphasis on the *Gymnasium*. The consequence is that in this country almost all aspects of educational policy are the subject of dispute: the length of time spent at primary school, the structures of secondary education, teacher training, the nature of universities, and educational objectives.

This book was mainly written for readers in other countries, and appears in several languages. It is intended to provide basic information about the Federal German educational system, and does not therefore lay claim to offering a comprehensive "Educational Report 1988".

Our education system must at first seem confusing to someone who regards it from the centralised structural perspective of a state like France or the Soviet Union. First, therefore, a word about federalism, which the author believes to be one of the great virtues of German education since it enforces conciliation between opposing elements in educational policy. Federalism is by no means an outcome of the post-war years imposed from outside. It is deeply rooted within our country's political and historical structure. This presentation must therefore focus on schools and universities in the eleven Laender rather than surveying a "national" educational system. Appropriate attention will, nevertheless, also be devoted to such joint structures as the Conference of Ministers of Education, the Federal Ministry of Education and Science, and the Federal Laender Commission for Educational Planning and Advancement of Research. It will, I hope, become sufficiently clear that the Federal Republic of Germany involves a completely restructured state, federal in nature. The federal and Laender authorities operate in conjunction. On the one hand there is the state as a whole, the federal authorities, with strongly unitary and centralising constitutional bonds, and, on the other, there are the eleven federal states (Laender) which – except for Bavaria, Bremen, and Hamburg – were newly constituted after 1945, and are increasingly developing or resuming their individual awareness and traditions. Since 1949 – or, to be absolutely accurate, with regard to education since the 1969 changes to the Basic Law – the formation of political and intellectual opinions and will, which is of enormous importance in educational policy, has therefore always taken place on two levels. That is why the educational system in the Federal Republic of Germany is so diverse, multi-layered, and gratifyingly variegated. Anyone who, like the author, believes in federalism must welcome the political parties' attempt at getting their views accepted in the Laender. The dispute over "the comprehensive or tripartite school system" thus boils down to the necessity of conceding to some the chance to develop comprehensives if others are to be allowed to produce a contemporary version of the traditional German *Gymnasium* (hopefully not thereby slowly reforming it to death).

The diversity of our educational system does, however, make it difficult to offer an adequate survey of its structure and organisation within limited space. Some details had to be omitted: on the regulation of assistance for training, colleges for the federal army, issues within sex education, the schools' psychological service, and advisory facilities on schooling and university education. The administration and financing of education could only be treated peripherally. No attention could be devoted to German schools abroad either, but an initial and valuable survey of these was recently published by Harry Werner.

There are two main emphases in this report. A very brief historical sketch is followed by a general depiction of educational policy, planning, and research in the context of our state's federal structure. Then comes a survey of the educational system from the elementary sphere to further education. Finally, attention is directed to issues within current discussions of educational policy. The appendix contains tables, schedules of lessons, and other documentation.

Our educational federalism will be confronted by new tests from 1992 onwards as a result of developments within the European Community. A more "Euro-centric" educational policy must not lead to restriction of our German federal structures. The federal and Laender authorities should prepare for that contingency in advance, attempting to realign state interests and educational policy within the individual Laender. Three ideas must be intensively discussed in the Federal Republic of Germany.

1) The Laender prime ministers last laid down our school system's basic structures about a quarter of a century ago in the 1964 Hamburg Agreement Between the States for Standardisation of the School System. The agreement serves roughly the same function as a law regulating the organisation of schooling within a centrally structured state. After the developments of the past twenty-five years it is high time to attempt a clear-cut re-shaping of the basic structures within our educational system in a new agreement. This time vocational training and teacher training should also be taken into account.

2) Ever since the dissolution of the German Education Council in 1975, there has not existed any institution for providing nationwide advice on educational policy – with the exception of the Science Council, which is mainly responsible for universities. Here too a new attempt should be ventured upon. A commission of enquiry is not sufficient.

3) The Comprehensive Education Plan (discontinued in 1982) should also be revived and continuously updated by the Federal-Laender Commission for Educational Planning and Advancement of Research. The advantage would be that the Laender ministers of education could co-ordinate their quantitative objectives to a greater extent.

This survey is mainly based on information and documentation from the Laender ministries of education, the Conference of Ministers of Education, the Federal Ministry of Education and Science, the Federal-Laender Commission for Educational Planning and Advancement of Research, the Federal Statistics Office, and the teachers' associations. The tables come from the 15th edition of the excellent "Grund- und Strukturdaten 1987/88" ("Basic and Structural Data 1987/88") produced by the Federal Ministry of Education and Science, and from the "Aktuelle schulstatistische Grundzahlen und Indikatoren" (1988) ("Current School Statistics: Basic Figures and Indicators") published annually by the Conference of Ministers of Education.

Useful assistance also came from Inter Nationes' "Education and Science" information service. It is not necessary to tell the well-informed about the problems involved in summarising such extensive material. I have endeavoured to extract the essential aspects from the confusion of developments, but will not always have succeeded. There are almost no thorough historical and critical examinations of contemporary educational policy, so that in attempting this stocktaking, it was not easy even to recognise the contours of an educational system submerged beneath plans, projects, and objectives. In addition, educational reforms are not an isolated phenomenon within our country, but are closely linked with international developments and discussions. That cannot be stressed in every individual case but must largely be taken as a matter of course. I endeavour to provide an overview of developments in recent decades as an introduction to current discussions. Advances in the school sphere, the most extensive sector within the education system, stand in the foreground. Limitations of space permitted only a relatively brief outline of the state of university and adult education.

Special tolerance is requested of the reader in one respect. Describing the "technical aspects of school" – the subjects taught, the nature of examinations, qualifications, etc. – is anything but a literary pleasure. It is often necessary to adhere closely to official texts so as to prevent some individual interpretation from leading the reader's imagination astray. Official texts are, however, often of an epic length. The most recent (April 1988) version of the Conference of Ministers of Education's agreement on reforming upper levels at *Gymnasium* extends with appendices over almost 40 pages. It is not easy to separate the chaff from the wheat and to present the reader with a brief summary of the facts. Striving for brevity also excluded separate designation of male and female. References to teachers and pupils imply both sexes.

Thanks for their help and advice is primarily due to Kurt Frey, Kurt Kreuser, and Dr. jur. Franz Letzelter. The author is honoured by the fact that the former secretaries-general of the Conference of Ministers of Education, the Federal-Laender Commission for Educational Planning and Advancement of Research, and the German Education Council subjected this book to critical evaluation. As always, the secretariat of the Conference of Ministers of Education and the Federal Ministry of Education and Science provided the author with much assistance. Particular thanks must be expressed to Peter Fränz, Gerhard Fengler, Harald Kästner, and Klaus Stöppler, who stand for many others. Thanks also go to Prof. Dr. Rudolf Schmitt, chairman of the Primary School Study Group. At the German Institute for International

Educational Research advice came from my colleagues Dr. Ursula Fehnemann, Prof. Dr. Karl Eckel, Dr. Peter Mast, Dr. Rudolf Raasch, Bernard Trouillet, and Horst Weishaupt. The staff of the Institute – Birgit Bittorf, Albrecht Denzer, and Hartmut Müller – provided rapid and helpful service. I also wish to express my gratitude to Gerhard Richter for the computer setting, and to Barbara Launer for multiple assistance.

This is not the first time that the author has ventured upon such a survey. Earlier attempts date from 1966, 1973 (both together with Prof. Dr. Walter Schultze), 1979, and 1985. Those were for the most part translated into English, French, Spanish, and Japanese. They form part of a tradition at the Institute which began with Prof. Dr. Hans Heckel's meritorious "Übersicht über das Schulwesen im Bundesgebiet" (1952) ("Survey of the Educational System in the Federal Republic of Germany"). These older reports, read synoptically, give an overview of our educational history since 1945.

This work celebrates over three decades of close co-operation and fatherly assistance. It is directed to Falsterbo in Southern Sweden where Kurt Frey, secretary-general of the Conference of Ministers of Education from 1955 to 1975, celebrates his 75th birthday on August 11, 1988, in his wife's homeland. This survey is dedicated to Kurt Frey as a token of all that I owe him.

Frankfurt am Main, July 1988 — Christoph Führ

Translator's Note

Since there is not always an exact English equivalent for German educational institutions, the German terms are usually used in the following text. When such institutions are first mentioned, both the German term and, in brackets, its English translation are given. The following glossary lists in alphabetical order the German terms together with the English equivalent used in this book.

Glossary

Berufsaufbauschule – vocational extension school
Berufsfachschule – full-time vocational school
Berufliches Gymnasium – vocational gymnasium
Berufsoberschule – vocational secondary school
Berufsschule – part-time vocational school
Fachgymnasium – technical gymnasium
Fachhochschule – degree-granting college of higher education roughly equivalent to a polytechnic
Fachoberschule – technical secondary school
Fachschule – technical school
Gesamthochschule – comprehensive university
Gesamtschule – comprehensive school
Grundschule – primary school
Gymnasium – grammar school
Hauptschule – non-academic secondary school roughly equivalent to a secondary modern
Integrierte Gesamtschule – integrated comprehensive
Kolleg – sixth-form college
Kooperative Gesamtschule – co-operative comprehensive
Kunst- und Musikhochschule – college of art and music
Oberrealschule – upper level intermediate school
Pädagogische Hochschule – college of education
Realgymnasium – intermediate gymnasium
Realschule – intermediate school
Technische Universität – technical university
Volksschule – elementary school
Wirtschaftsschule – trade school

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KARL JASPERS, 1931

"Symptomatic of our age's unrest with regard to education is the intensity of pedagogic endeavour lacking a unified concept, the huge number of publications each year, the increase in didactic art, and the personal dedication of individual teachers to a degree hitherto seldom to be found. For the moment, however, our situation is characterised by dissolution of substantial education in favour of an endless pedagogic trying out, a breakdown into casual possibilities, and an untrue directness of the unsayable. It is as if the human freedom achieved is renouncing itself in favour of the empty freedom of the insignificant. An age which does not trust itself is devoting attention to education as if something could once again develop out of nothingness".

From: "Die geistige Situation der Zeit". Berlin & Leipzig: de Gruyter, 1931. P. 94. (Eng. trans. "Man in the Modern Age", 1933)

EUGEN ROSENSTOCK-HUESSY, 1946

"Liberalism does not interest me as mere anarchy of convictions and criteria. But liberalism as parents' readiness to give their children an education paving the way for the future is something splendid to me. Those parents were ready to allow their children to get further than they themselves would ever get. The truly Christian spirit of liberalism lies in entire generations' readiness to allow their successors to enter a future from which the parents were themselves excluded. The ... maxim which was to prevail from 1789 runs: No generation is allowed to force its beliefs onto the next generation. When liberal anarchy has become such a predominant criterion for the individual everywhere, our 'fundamentalists' easily overlook this absolutely crucial declaration of love in an agnostic age".

From: "Des Christen Zukunft". Munich & Hamburg: Siebenstern, 1965. P. 267. ("The Christian Future". Originally published in America in 1946)

1. Introduction

These quotations from Karl Jaspers and Eugen Rosenstock-Huessy delineate the disputed area in which education and training in Germany have existed for generations. Political "upheavals" have constantly exerted a profound influence on school and university. The turning-points of 1918, 1933, and 1945 have never allowed the Germans any peace. They are not the "past". Instead, all the associated guilt, suffering, and disaster constitute a living present – even though a dazzling facade may deceive superficial observers. School and universities are also undergoing constant change. Their eventful history is a paradigm of Germany's great national and social cataclysms. They are an intellectual battlefield – and that was the case long before Germany was divided in 1945 and drawn into the antagonism of the world powers. Within the education system ideologies contend in a multitude of ways for dominance over minds. The often heated atmosphere of the great disputes over educational policy cannot, however, prevail in this presentation.

1.1 Contours of Educational Reform

The greatest expansion ever in the history of German education has occurred in the Federal Republic of Germany during the last three decades. During the first fifteen years – between 1959 and 1973 – educational policy was largely determined by a great public debate about the necessary reforms. Discussions got under way in 1959 when the German Committee for Education and Training put forward its Outline Plan (see section 3), and concluded with approval of the Comprehensive Education Plan in 1973 (see section 2.5). Reforms accompanied by large-scale expansion of the secondary and university spheres resulted in particular strains and problems. It is sufficient to mention the limitations on university entrance and the impact this exerted on the system as a whole. Viewed in retrospect, there was a strikingly rapid change in public opinion and in the overall political and economic situation. Full employment largely existed until 1973, but since then mass joblessness has prevailed. A phase of euphoria about education when people even discussed whether the education system could be decoupled from the demands of employment was followed by a profound sobering up when during the past decade such decoupling began to become reality in the form of graduate unemployment, particularly among young teachers.

The setting of new objectives and the arrival in the system of children from years with high birth-rates played a major part in expansion of education. The number of births has, however, sunk since the mid-sixties, so the number of school-children has again declined within the past decade. The wave of expansion extended throughout the entire system from kindergarten to university, peaking in different spheres at different times. That can be statistically demonstrated. The number of pupils at general and vocational schools rose between 1960 and 1975 from 8.6 to 12.2 million, and then declined again to 9.5 million by 1986. In 1960 there were 260,000 teachers, and in 1981 568,000. The number of teachers has since fallen to 546,200 (1986), but that is nonetheless considerably more than in 1975 when pupil numbers peaked at 495,000. That has made possible a noticeable reduction in size of classes and teacher-pupil ratios – in brief, an improvement in the teaching situation. The expansion is still continuing in the universities. A new record was established in 1987 with 1.4 million students – as compared with 291,000 in 1960. Demographic factors provide a partial explanation, but the educational objective of improving young people's levels of qualification and guaranteeing them greater equality of social opportunity is more significant.

The following table depicts those developments. These few figures document great changes, which will be considered in more detail at a later stage.

Percentage Distribution of Pupils in Secondary Level I
(Class Level 8)

Type of School	1960 %	1970 %	1980 %	1986 %	Change since 1960
Hauptschule (Secondary Modern)	70.2	55.0	40.5	38.0	−45.9
Realschule (Intermediate[1])	13.2	21.9	28.2	29.2	+121.2
Gymnasium (Grammar)	16.6	23.1	27.3	27.6	+66.3
Integrierte Gesamtschule (Integrated Comprehensive[2])			4.0	5.2	

1. Inclusive of 3 and 4 level trade schools in Bavaria
2. Inclusive of Steiner schools.

Source: Conference of Ministers of Education.

First, a brief outline of reforms in the general school system since the sixties.

This phase characteristically begins and ends with reforms of the upper level at *Gymnasium* in 1960 and 1972. Following discussions about the German Committee for Education and Training's outline plan, these reforms got under way with the Conference of Ministers of Education's 1960 Saarbrücken Outline Agreement. In the same year the procedures regulating transition from the *Grundschule* (primary school) to the *Realschule* (intermediate school) and *Gymnasium* (grammar school) were changed. The way ahead was laid down in a resolution (8./9. 12. 1960) passed by the Conference of Ministers of Education, where the key sentence ran: "Every child must have access – irrespective of parental situation and income – to the form of education that accords with his or her ability." Orientation levels (mixed ability classes) were established, for the most part on an experimental basis. The reorganisation of rural schooling which was already under way was intensified. Thousands of small and largely unstructured elementary schools (village schools) were closed down, and replaced by centrally situated *Grundschulen* (primary schools) and *Hauptschulen* (secondary moderns). Introduction of the ninth obligatory year of schooling was completed in the sixties, and experiments were initiated with a voluntary tenth year at *Hauptschule*. 10 years of obligatory fulltime schooling have been the norm in West Berlin and North Rhine-Westphalia since 1979/80. The network of *Realschulen, Gymnasien*, and special schools has been extended, and a comprehensive transportation system developed for pupils.

A broad-based discussion about the *Gesamtschule* (comprehensive school), mainly promoted by the Social Democratic Party and the Education and Science Trade Union, started in the mid-sixties. Two objectives, still controversial today, emerged then for the first time:

- Unification of autonomous forms of school *(Hauptschule, Realschule,* and *Gymnasium)* in co-operative or integrated comprehensives.
- Replacement of teacher training for specific kinds of schools by graduated training (primary level, secondary level I, secondary level II).

In 1967 a debate about pre-schooling, sparked off by international discussion, began. That was followed at the end of the sixties by discussion of curricula. Teaching of mathematics was reformed so as to take account of "new mathematics" and "set theory". Reform of curricula also largely followed Anglo-Saxon initiatives, and culminated in 1972/73 in a nationwide debate about the Hesse guidelines for German and social studies. The educational objectives put forward by Hesse's Ministry of Education were founded on emancipatory, anti-authoritarian, and socially critical theories of socialisation and communication. The old dispute about the "purpose" of education and training, imagined to be long buried, thus exerted a widespread impact. Neo-Marxist pedagogics in a multitude of guises attempted to introduce aspects of class struggle into schools.

The 1969 Frankfurt Primary School Congress provided initiatives for reorganising that level of education. Recommendations from the Conference of Ministers of Education promoted university reform. In 1972 the Conference agreed on a second reorganisation of upper level at *Gymnasium*, which was so far-reaching that "reforms of the reform" have been necessary up to the present day (see section 10.1).

There were also many new developments at vocational schools. A start was made at the end of the fifties – at the initiative of the Conference of Ministers of Education – on planned expansion of schools of engineering. Outline agreements furthered a largely co-ordinated development of such schools, which were integrated in *Fachhochschulen* (degree-granting colleges of higher education) after 1968. The *Fachhochschule* system with its broad range of subjects taught was at that time newly established and generously developed as an autonomous form of university – on the basis of agreements reached by the Conference of Ministers of Education. *Berufsaufbauschulen* (vocational extension schools) and *Fachoberschulen* (technical secondary schools) were set up as new forms of training within the vocational system. Alternative ways of achieving the qualification for university admission were improved, e.g. evening classes were extended and *Kollegs* (sixth-form colleges) established. The university system (see section 15 for greater detail) was expanded in grand style, following evaluations and plans prepared by the Science Council (Wissenschaftsrat). Many new universities and colleges, embodying an abundance of reforms, came into being.

From 1970 onwards attempts were made to convert these partial reforms into long-term structural changes. That was the objective in the structure plan by the German Education Council's education commission approved in February 1970, in the 1970 Education Report published by the Federal Government in June of that year, and in the Federal-Laender Commission for Educational Planning's Comprehensive Educational Plan brought out in June 1973 (see sections 2.4, 2.5, and 3). Up until 1973, the year of the oil crisis marking the start of a recession lasting for several years, expansion of the education system took place against the background of ongoing economic growth and full employment. During that period the dovetailing of provisions for education and employment was scarcely felt to be a problem, since those who completed schooling quickly found jobs. During the years of educational euphoria, particularly in the sixties, unrealistic objectives were particularly prevalent. It was, for instance, suggested that the educational system should be decoupled from the employment structure. Heinrich Roth, the Göttingen educationist who was at that time an influential member of the German Education Council's education commission, thus declared in 1965: "We need more school-leavers qualified for university admission even if they are no longer 'necessary'. We need the doubling of their number already under way in order to survive in the competitive struggle between East and West. In order to win the 'peace' we even need significantly more since the minimum precondition for making progress in that direction is an increase in everyone's capacity for thought and making decisions." Let us leave on one side the problems involved in including East-West oppositions in the argument, or the questionable nature of the idea that peace could be gained through education. There remains the ill-judged sentence: "We need more school-leavers qualified for university admission even if they are no longer 'necessary'." That seems dubious in the light of increasing unemployment among young graduates, and particularly teachers, during the past decade. One of the severest critics of unrealistic educational ideas was Professor Dr. Heinz-Dietrich Ortlieb, then director of the Hamburg Archive of Global Economics, whose book "Die verantwortungslose Gesellschaft" ("The Irresponsible Society", 1971) very much takes to task the claims of euphoric educationists. Ortlieb stressed: "Anyone who at present propagates a society where education predominates must reckon with being accused of representing a new ideology which at best can only benefit a privileged group of intellectuals and semi-intellectuals for whom others must make sacrifices. Today and for the forseeable future we are still far removed from an affluent society which no longer needs to consider the individual and social cost-benefit ratio in educational investments – i. e. the price involved in such expansion."

The attempt to implement social reforms by way of educational reforms demanded too much of the system, and intensified controversies between the political parties. All those who primarily comprehended educational reforms as a vehicle for reshaping society were able to observe in an almost historic arena for experimentation what Friedrich Paulsen had put forward a century ago in his "Geschichte des gelehrten Unterrichts" ("History of Scholarly Teaching"). "I started to see things in the light of historical developments, and one aspect became predominantly clear to me: the fact that schools follow the general movement of culture rather than autonomous motion. The great flux of historical existence largely determines their course of development, not pedagogic considerations." Educational reforms thus follow social developments. The attempt to implement an egalitārian, non-authoritarian society by way of politicisation of the entire educational sphere, to enforce social reforms through changes at school and university, and to some extent to pre-empt social developments overestimated the limited possibilities open to school and university, and instead helped stabilise counterforces.

1.2 Aspects of Educational History

The German education system looks back on a long tradition, closely linked with the history of education in Europe as a whole.

The re-discovery of German educational history is one of the most astonishing phenomena of the past decade. It is hardly possible to keep up with the large number of publications. Ulrich Herrmann edited a six-volume "Geschichte des Erziehungs- und Bildungswesens in Deutschland" ("History of Education and Training in Germany") – from the 18th century onwards. No fewer than 40 or so publications have appeared within just a few years in the German Institute for International Educational Research's series devoted to "Studies and Documentation in German Educational History". A six-volume "Handbuch der deutschen Bildungsgeschichte" ("Handbook of the History of German Education") has started to appear, constituting the first attempt at a comprehensive presentation. The history of education was for long an almost forgotten aspect of German historiography and pedagogics. New questions, primarily within social history, have now gained in importance. For over a century, historians of education had often merely viewed and described schools and teaching, universities, colleges, and research from the outside. The history of the education system was largely reduced to structures, objectives, developments within the humanities, influences, precursors, and impact. Little in the way of comprehensive attention was devoted to what "education" signified for both individuals and state and society, to what "education actually constituted", to the development and impact of entitlement, and to the influence of social, economic, technical, and political developments on the education system. And here too we can only refer very briefly to the history of education.

Today's education system is the outcome of a long historical process. It should be stressed that – apart from the period of the National Socialist regime

(1933-1945) – the German system was always a responsibility of the regional states. The sometimes suprising diversity of the German education system is nothing new, and it is in fact deeply rooted in political and historical developments. The Reformation and Counter-Reformation were particularly important. Luther's translation of the Bible opened up general access to written language for a people hitherto largely illiterate. In Protestant territories the Bible and Luther's Little Catechism were basic texts within popular education. Luther's Bible, for centuries the most-read book in German, was instrumental in the emergence of standard German. Since the 16th century the German educational system has differed from small state to small state, denominationally influenced by Lutheran, Calvinistic, or Catholic domination. Denominational and ideological influences were stronger than economic, social, and technical developments. Hans-Ulrich Wehler's pioneering "Deutsche Gesellschaftsgeschichte" ("History of German Society") is to the point: "There can be no serious scholarly doubt that for a period of over four centuries after 1517 Protestantism played a historically much more significant part on German soil than Roman Catholicism. That liberating, forward-looking influence, was, however, accompanied by bleaker, darker aspects. Viewed in terms of universal history, Protestantism did nevertheless implement a new and ultimately world-embracing form of Christian belief, which also helped bring about a breakthrough for – even made possible – the modern concept of political freedom. Its incomparably greater cultural productivity was demonstrated in scholarship and education, at universities and in literature, and in publishing and journalism – indeed, in everything to do with our written culture. In the economic sphere Protestantism helped release unprecedentedly powerful energies, and the social history of the educated German bourgeoisie would have been inconceivable without it. In contrast, even though progressive elements moderated German Catholicism during the Counter-Reformation and the Enlightenment, it was only in the course of the 19th and 20th centuries, following the shock of the 1803-15 secularisation, that the Catholic Church succeeded in reducing the differences that had for so long separated it from the modern, urban, secularised, scientific civilisation which Protestantism had helped shape."

In the 18th century, the Enlightenment evened out denominational differences for a while. At the end of the century an extensive debate about the organisation of "German national education" started and extended over decades. There were three basic emphases within endeavours towards reform:

- Improvement of elementary education and introduction of compulsory schooling. Establishment of Pestalozzi-style seminars for teachers. In short, development of the elementary school with the outcome that illiteracy was largely overcome by around 1850.

- Reform of the *Gymnasium* in the spirit of modern humanism. Transformation of small, unstructured Latin schools into efficient *Gymnasien* with separate classes for different age-groups. Development of separate training courses for *Gymnasium* teachers (philologists) in the newly-established university faculties of philosophy.
- Organisation of an effective state educational administration.

Prussia took action after the defeat of Jena and Auerstedt in 1806. Reform of the state hierarchy and the army also extended to education, with Wilhelm von Humboldt playing a prominent part. Over the next few decades there came into being a public education system founded on compulsory schooling and regulated by way of curricula, examinations, and entitlements. In 1817 the Prussian Ministry of Education was established. The other German states also extended their educational facilities. In many cases Prussia was the model, but Saxony, Bavaria, Württemberg, Baden, and Hesse had their own clearly defined educational traditions. Berlin University, established in 1810 and after two decades the largest in Germany, was a highly influential new kind of educational institution whose teaching and research introduced students to independently critical dealings with scholarship. Undoubtedly, the Prussian *Gymnasium* also established crucial preconditions for Germany's political and social transformation from an agricultural to an industrial society. On the one hand, it trained the ruling class within state, industry, and society, and, on the other, – as Ernst Rudolf Huber stresses in his great "Deutsche Verfassungsgeschichte seit 1789" ("German Constitutional History since 1789") – its radical liberal critics and socialist theoreticians. Karl Marx and Otto von Bismarck were both products of the pre-1848 Prussian *Gymnasium*. Hans-Ulrich Wehler recently remarked of the Prussian *Gymnasium* that "thanks to its social openness . . . it possessed the attractiveness of a 'democratic, achievement-oriented school'." Almost 20% of the pupils came from the lower middle class, primarily from a craft trade background. The charge, often raised during disputes about educational policy in recent decades, that the *Gymnasium* had been a "class school" for the educated bourgeoisie since the 19th century is not well-founded. More recent investigations show that the parents of two thirds of the pupils at the average 19th century *Gymnasium* had not been to university. The educated were few in number at that time, and Germany was a poor country. It would scarcely have been possible – in the smaller towns at least – to have filled *Gymnasien* with the offspring of graduates. A considerable proportion of the qualified and willing pupils came from the urban petit-bourgeoisie. Their number rose to 40% at certain schools which have been examined more closely. The children of workers and peasants were, however, very poorly represented, which is partly explained by the location of schools. Higher schools only existed in towns. Fees were also a great problem for such parents. In fact only a few per cent of male pupils attended higher schools, whereas 90% went to elementary schools. The gulf between elementary school and gymnasium was very great. Very occasionally highly talented lower-class children, often backed by clergyman and teacher and assisted by a scholarship, succeeded in getting to *Gymnasium* and university.

Up to 1900, the *Gymnasium* – offering Latin, Greek, French, and, as an option, Hebrew – was the only higher school in Germany to award the full qualification for university admission. If pupils from the then numerically less developed equivalents of today's *Gymnasien* concentrating on modern languages or mathematics and the natural sciences wished to study medicine, for instance, they first had to pass an additional examination in Latin and Greek. Only in 1900 was the "Gymnasium monopoly" ended in Prussia, and the *Realgymnasium* (intermediate gymnasium) and *Oberrealschule* (upper level intermediate school) accorded equality of status with regard to university entrance. That brought to an end decades of conflict between humanists and realists. The other German states followed the Prussian example. The elimination of this "Gymnasium monopoly" established the preconditions for considerable expansion of high schools with a stress on modern languages, mathematics, and the natural sciences. The way to higher education was thus opened to more talented and ambitious pupils from population groups lacking "property and education". Organisationally, that paved the way for an expansion of secondary education, which has extended to the present day.

Around the turn of the century, foreign experts thought many aspects of German *Gymnasien* and universities, elementary schools, teachers' seminars and vocational schools, and, above all, of educational administration worthy of emulation. Despite all the warnings by cultural critics since Nietzsche, the German Reich had gained a global reputation as a cultured state.

Technical colleges developed out of modest training centres to become reputable research institutions. In 1900 Prussia made them equivalent to universities. Nevertheless, controversies about educational policy demonstrated that the educational system in Imperial Germany was lagging behind structural change in society. Access to secondary education and university was only available to a limited extent for able lower-class pupils. The school system was not "open" in organisational terms. The elementary school was in a dead-end situation. The struggle for democratisation of the education system, improvement of education for girls, ending of church control of primary schooling, elimination of church influence over school governors, and improved training for elementary school teachers extended over decades.

Among the important innovations in the 1919 Weimar constitution was the fact that the Reich gained jurisdiction over educational policy for the first time in German history. Article 10 laid down that the Reich was responsible for legal regulation of fundamental aspects of school and university. The constitution also contained an extensive programme for the reform of schools and teacher-training, conceived as a means of spiritual reconstruction and inner recuperation after the First World War. The 1920 law regulating primary schooling (see section 8.1) was the only legislation to be implemented. Antagonisms between the parties, particularly between Catholics and the Liberals and Socialists, made it impossible to pass the laws on elementary schools and teacher training provided for in the constitution. The Reich thus excluded itself from educational policy, which remained the province of the states. Many reform initiatives changed the educational climate, Prussia started to replace teachers' seminaries by academies of education. Some states integrated the training of elementary school teachers into the universities. Increasing fragmentation in schooling and teacher training made it easier after 1933 for the National Socialists to justify the ideological neutralisation and organisational unification (for instance, of secondary education and technical training) introduced by the National Ministry of Science, Education, and Popular Enlightenment set up in 1934. The traditional autonomy of universities was also largely destroyed, or at least "brought into line". Some 1,700 scholars, including over 300 university professors, were dismissed for political or racial reasons. Their number included such international celebrities as Albert Einstein, and they mostly emigrated to the USA and England. Looking back to that time, Friedrich Heer writes: "Germany has been irretrievably impoverished by the elimination of its Jews. German intellectual life has suffered an irreplaceable loss. Everything has become provincial." A harsh assessment, over-stated as so often with Heer, but close to the truth. Heer sums up: "German intellectual life from the 18th to the 20th century is inconceivable without the eruptions of Jewish elements. From Moses Mendelssohn, Heinrich Heine, Karl Marx, and Sigmund Freud to Albert Einstein, German-Jewish thinkers and philosophers (Simmel and Husserl – Heidegger's teacher – just to mention two from a great number), political scientists, doctors, psychologists, analysts, biologists, chemists, physicists, bacteriologists, jurists, writers, and critics established the expanded realm of German intellectual life." The period of National Socialist rule with the consequent destruction of large parts of the country during the Second World War, the millions of refugees and expellees, and finally the division of Germany exerted a highly adverse impact on the education system. At the end of the Second World War, most German schools and universities had been destroyed. Lack of rooms, teachers, and all kinds of teaching materials obstructed reconstruction. Many teachers with a Nazi past had to be temporarily or permanently removed from schools. Over a decade of work was necessary for physical re-establishment of schools and universities. Millions of refugees and expellees from Middle and East Germany had simultaneously to be provided for and integrated – which constitutes one of our state's great achievements. Schools and universities played an important part in this process.

During the initial post-war years, the allied powers in their zones of occupation endeavoured to implement their particular educational approaches (see also section 1.3) with the objective of "re-education" – a concept taken over from criminal psychology. That changed little in educational structures, but contributed towards revival after a long pause of exchanges of international educational experience. German educationists mainly attempted to build on from attempts at reform during the Weimar Republic. Such endeavours were criticised as early as 1950 as a "restoration". Walter Dirks made particular use in the "Frankfurter Hefte" of that belligerent slogan in a political struggle with Konrad Adenauer, then Federal Chancellor. However, the term obscures the real developments. Viewed superficially, the idea of "restoration" did apply to the re-introduction – particularly in Laender governed by the CDU – of the denominationally structured elementary schools closed down by the National Socialists. Re-establishment of such schools took place, however, in completely changed social circumstances as compared with the twenties. Up to 1945 there existed relatively clear-cut Protestant and Catholic regions. The great movement of refugees during the war and the years that followed led to an unprecedented mixing of peoples. Protestant refugees poured into hitherto strictly Catholic towns, and vice-versa. Structuring elementary schools denominationally soon turned out to be impracticable. Public denominational schools (*Grundschule* and *Hauptschule*) largely vanished in the sixties – with virtually no public discussion and the approval of the churches. Secondary education was also not just simply "restored". A whole range of new developments – inclusive of new types of school –

occurred during the post-war period. *Realschulen* were first extensively constructed, and alternative ways of gaining access to university education largely re-thought. There were in fact so many innovations after 1945 that at the start of the fifties people talked about "chaos in schools". The Laender, which after 1945 had, in continuation of federal traditions, taken on responsibility for the educational system, started to develop in different directions. They were nevertheless aware of the necessity of working together at the national level. The first and only conference of ministers of education from the whole of Germany (including the then Soviet-occupied zone) took place at Stuttgart in February 1948. Agreement was reached on implementing theexpansion of schooling in a spirit of democracy, social justice, peace, and understanding between peoples. A call was issued for the all-round development of children, irrespective of their parents' economic situation. Co-operation with ministers of education from the Soviet Zone was, however, disrupted soon afterwards by the cold war. Only some four decades later have contacts been renewed on the ministerial level. The Conference of Ministers of Education recently commemorated that first joint conference.

The Standing Conference of Ministers of Education took up its work as an instrument of co-ordination between the Laender even before the Federal Republic of Germany was established. Viewed from today, it is often maintained that an opportunity for fundamental structural reform of our educational system was missed at that time. People talk sweepingly about "two decades of non-reform". That charge is just as unjustified as the previously mentioned accusation of "restoration". New developments in the organisation of schools – including introduction of six years of primary schooling in some Laender – were viewed by public opinion as leading to "school chaos". A transformation was initiated by the Düsseldorf Agreement (see section 2.3) prepared by the Conference of Ministers of Education and approved by the Laender prime ministers in 1955. During the following decade general schooling was largely unified within the Laender. This high degree of uniformity resulted, however, in intermittent stagnation within school policy. Important impulses towards reform then came from the German Committee for Education and Training established in 1953 (see section 3). Particular mention must be made of the 1959 outline plan for reshaping and unifying the general state school system. Until the end of the fifties, reformers mainly based their endeavours on the educational objectives prevalent during the first decades of this century, but then a change occurred. Increasing attention was devoted to sociological concepts and empirical analyses. International co-operation in the Council of Europe, the OECD, and later the European Community brought fresh aspects. International discussions and comparisons strengthened the view that the German education system was incapable of keeping up with social developments. The German Committee was mainly responsible for dissemination of that belief. Its initial consideration in drawing up the 1959 outline plan was the thesis that: "the German school system has not kept up with the upheavals which have transformed state and society during the past fifty years", but no detailed evidence was presented in support of such a supposition. More precise criteria for evaluating the supposed backwardness were lacking. The Committee simply ignored developments within the school system during the fifties – including the important fact that only during the post-war years had intermediate schools been expanded nationwide to cover needs, particularly in South German Laender. Extension of the *Gymnasium* system also made great progress during the fifties. Between 1952 and 1960 the number of pupils at *Realschulen* increased from 301,000 to 430,000 (i. e. by 43%), and at *Gymnasium* from 681,000 to 853,000 (by 25%), while overall numbers at schools providing a general education declined slightly from 6.8 to 6.6 million. Was this expansion not a sign of this supposedly backward education system's capacity for adaptation to a mounting demand for education? At that time, however, the arguments of those who claimed that the educational system was backward were unquestioningly accepted by many. That helped legitimise the concepts of reform supposed to adapt the German education system to contemporary social demands.

The necessity of long-term, comprehensive, national educational planning in the Federal Republic of Germany first became apparent to the general public when the Conference of Ministers of Education published a report on the October 1961 OECD conference at Washington. This report, released in February 1962, was entitled "Economic Growth and Expansion of the Education System". At that time economists and the makers of economic policy claimed to be able to guarantee ongoing economic growth and to forecast the medium-term quantitative and qualitative requirements of education and training. The recession which started a few years later demonstrated that the economists had overestimated their capacity. The OECD report also contained a thesis later taken up and popularised by Ralf Dahrendorf: "Access to education and training will in future be increasingly viewed as a basic right." In 1965 Dahrendorf coined the handy slogan of "the right to education". One important outcome of the OECD conference was the establishment of the conviction that educational expansion in the sixties had to concentrate on the upper level at schools and on the universities. The forecast that a great breakthrough would occur in both spheres within a few years was correct. One of Germany's best-known educational economists, Professor Friedrich Edding, who was at that time working at the College of International Educational Research (today the Frankfurt-based German Institute – see section 4), attended the conference. In 1961 Edding and his colleague Roderich von Carnap had published statistics on relative school attendance in the German Laender. Their demonstration of considerable divergences in the expansion of our school system as a result of Laender differences in economic, geographical, communications, and social structure exerted a sensational impact. People became generally aware that the school system was regionally very unevenly developed. One of the most urgent objectives in early sixties educational policy was therefore to overcome discrepancies between town and country on the one hand, and between Laender on the other. The basic principle of opening up access to all forms of education for all qualified and willing young people had long been accepted, but up to that time the relatively selective school system resulted in social selection. A broad-based strategy of educational planning and policy, which extended to upgraded transportation for pupils and financial incentives through assistance for training, served development of "reserves of talent", improvement of the "selection procedure" during transition from primary to secondary education, and intensification of the network of *Realschulen* and *Gymnasien*. In 1963 the then Federal Chancellor Ludwig Erhard declared that the German people must become aware that education and research were as important for our age as alleviation of social problems had been in the 19th century.

In March 1963 the Conference of Ministers of Education for the first time published a comprehensive list of requirements within the school system, teacher training, scholarship and research, and art and the cultivation of culture for the period up to 1970. Up till then civil servants had viewed educational planning (if it existed at all) as something secondary, but during that period special departments were established in most ministries of education. Such planning as documented in the Conference of Ministers of Education's list of requirements was not viewed as being interventionist but rather attempted to estimate future demand for places at school and university as the basis for further expansion of the education system and the accompanying need for personnel and finance. When it was published, this list was much criticised for having supposedly overestimated future numbers of pupils and teachers, and the money necessary for expansion of the education system. The reality was that anticipated requirements were quickly overtaken by developments. The numbers of pupils at *Gymnasien*, *Realschulen*, and special schools in 1970 were thus considerably higher than forecast in 1963, whilst numbers at *Grundschulen*, *Hauptschulen* and *Berufsschulen* (vocational schools) were lower than predicted.

Type of School	Estimated nos. in 1970	Actual 1970
Grund- and Hauptschulen	6,566,197	6,342,468
Realschulen	627,706	865,617
Gymnasien	954,344	1,371,576
Special schools	210,649	321,585
Vocational schools	1,925,916	1,603,663

The list of requirements thus demonstrates how difficult it is even for experts to make an accurate estimate of an expansion that is already under way. This process of development was of course intensified and accelerated by policy measures in the sixties so that it finally overran everyone involved. Educational authorities at that time virtually succumbed to an attack of "administrative ecstasy".

During that initial phase of discussions about reform, it was Georg Picht who provoked an unusual response in 1964 with a series of articles entitled "Die deutsche Bildungskatastrophe" ("The German Educational Catastrophe"). Picht, who had previously attracted little attention as an educational policy-maker, was director of a non-state institution and a member of the German Committee for Education and Training. He was in charge of the German Protestant Church's Heidelberg-based research centre. In spring 1964 Picht published a series of articles in the conservative Protestant weekly "Christ und Welt" ("Christ and World"), deploying effective rhetoric in presentation of his expectation of an imminent German educational catastrophe. "A state of educational emergency beyond most people's imagining lies ahead. That will entail an economic state of emergency too . . . If the education system breaks down, the whole of society is threatened". Picht said there was still a chance of preventing such an educational catastrophe. Government and parliaments had to take action. "If they do not, it is already indisputable who will be responsible for the third large-scale breakdown of German history within this century." Apocalyptic visions thus supplanted objective analyses. Picht ranked the supposedly imminent catastrophe alongside the disasters resulting from two world wars. That was an unfounded and untenable comparison. His argument was – successfully – directed towards the deep, emotionally-charged insecurity of the German people.

Picht's prophecy of doom, deploying international comparisons, succeeded in arousing the public. Such data – maintained Picht – documented the backwardness of the Federal German education system when viewed alongside comparable industrial nations. His frequent references to France exerted a great impact. France was said to produce "almost three times as many pupils qualified for university entrance despite having a smaller population" than the Federal Republic. Only by way of a radical reshaping of the German education system would sufficient teachers be available by 1970 for an additional 2 million pupils. The number of those qualified for university entrance (i. e., with Abitur) should therefore be at least doubled within a decade. That objective was in fact achieved. In 1963 some 61,000 pupils gained the Abitur, and in 1973 the number was 148,000 including 39,000 qualified for polytechnics. The feared educational catastrophe was thus warded off by way of numerous reform measures implemented by the Laender ministries of education and the Conference of Ministers. The fact that for years now we have been experiencing a different kind of profound educational crisis can, however, hardly be denied. The doubling of holders of the Abitur and increases in the numbers of students up to the present day have produced more problems than such measures were intended to solve. Picht set a broad-based discussion in motion. Dahrendorf, Erlinghagen, and others demonstrated that at that time working-class children, youngsters from rural areas, and girls were underrepresented, and that there was a lack of educational facilities for Catholic as compared with Protestant sectors of the population. "Lack of educational opportunities for Catholics" had in fact been discussed in the 19th century, but the problem was only solved in the course of the developments of the past two decades.

In the university sphere the assessments and recommendations made by the Science Council (Wissenschaftsrat) established in 1957 played a crucial part in expansion and new developments (for more details see sections 3 and 15). The call for far-reaching reform of the education system aroused such a strong public response that all political forces took it up. In March 1964 the Conference of Ministers of Education took the occasion of its 100th plenary session to present a critical interim balance. The Conference drew on international experience in outlining the long-term objectives of educational reform in the Federal Republic of Germany:

- Raising the overall level of training for young people through increasing and improving all kinds of schooling
- Increasing the number of youngsters completing higher levels of schooling

- Training every individual to the highest degree of his or her capacity for achievement
- Offering training possibilities better adapted to individual capacity. Measures for placing pupils in appropriate courses (i. e. observation level)
- Increasing transferability between all existing schools (i. e. horizontally rather than vertically structured organisation)
- Creating new forms of secondary education.

That constituted the basic consensus – beyond party allegiance – of the Laender Ministers of Education at the time. The will to unanimous regulations and standardisation of the education system was also revealed in the Hamburg Agreement concluded by the Laender Prime Ministers in autumn 1964 as replacement for the 1955 Düsseldorf Agreement (see section 2.3). The guidelines on educational policy agreed by the Social Democratic Party in July 1964 were of great import for discussions in the years that followed. One of the key points concerned changing the structure of the school system. The conventional vertical structuring of the tripartite system into *Hauptschule*, *Realschule*, and *Gymnasium* was to give way to a horizontal step-by-step form, which entailed introduction of comprehensive schools. This key concept within discussion of school policy was, however, at that time more of a peripheral idea. The SPD guidelines also announced federal participation in educational policy as was to come about in 1969. A comparison of the SPD and CDU/CSU educational programmes dating from that period would make clear how close these parties still were in terms of basic educational views. Let us recall a few of these 1964 SPD guidelines. "The German Social Democratic Party views educational policy as our country's most important communal task . . . School complements upbringing in the family, exerting an impact alongside the educational influences of the public and groups within society . . . The incorporation of the school within a free society's educational system demands that school policy be fundamentally open. It must not be left to a bureaucratic administration or become a battleground for individual groups' particular demands . . . The school system can only do justice to its many tasks if

- Education is implemented in the spirit of the constitution
- The quality of specialised training is the criterion for regulation of schooling
- None of the kinds of school accepted by the state are discriminated against
- Education leads to openness rather than separation and intolerance, doing justice to the human dignity of those who think differently
- Freedom of conscience is observed for teachers.

In its twelve theses on cultural policy approved in March 1965 the CDU called for "the shaping of our state so as to do justice to the educational needs of all."

At the end of 1965 Ralf Dahrendorf published "Bildung ist Bürgerrecht" ("The Right to Education"), advocating active educational policy. Behind that proclamation is the political conviction that practice of political rights and duties and participation in public life are today exclusively dependent on one's degree of education. That raises the question of whether this overestimates the role of education. Anyone who is of the opinion that awareness of political rights and duties is only assured through an education equivalent to the qualification for university admission creates a two-class society, making political privilege out of educational privilege. Would this not automatically make people whose education was at a *Hauptschule* or *Realschule* or vocational school "obsolete" social relics of an "abortive" education system?

The German Education Council (Deutsche Bildungsrat – see section 3) was established in 1965 in succession to the German Committee for Education and Training. The Council produced a large number of recommendations and assessments of educational policy up to 1975. The comprehensive reforms with which the present publication is concerned were introduced during this period, against a background of much-remarked unrest among students and pupils at *Gymnasien* and vocational schools. That certainly does not mean however that the student movement was the real "motor of reforms". As we have seen, reforms had long been under way when the academic young put forward their own ideas. The key experience for the "generation of '68" was the Vietnam war, experienced daily by way of TV reports. Radically critical discussions took place in schools and universities, state and society, and led to street demonstrations, occupation of academic institutions, and boycotts of lectures.

Educational reforms – particularly involving universities (see section 15) – erupted like a fever in the mid-sixties, becoming a "movement" and one of those "upheavals" which occur in German history time and again. Hardly anyone was able to avoid the initial impetus. All the political parties throughout the country went along with it, without being able to regulate what was happening. How much time which would have been better spent on teaching or research was wasted – with the best of intentions – on endless meetings and wearisome debates in schools and universities!

The term "educational reform" might arouse the impression that a unified concept, supported by all the political parties, existed at that time. That was not the case. Reference here to educational reform entails a catch-all term covering numerous partial reforms in the eleven Laender. The public was much involved in all these developments. Television and radio regularly devoted special programmes to educational issues. Both media were integrated in correspondence courses, which were considerably expanded. Daily and weekly newspapers started at that time to offer ongoing (rather than just sporadic) coverage of education. Trade fairs such as DIDACTA or the Dortmund school exhibitions attracted large numbers of people. New magazines exerting a considerable mass impact – such as "betrifft: erziehung" ("subject: education") – were launched. Most of them have ceased publication in recent years. Another sign of declining interest in discussion of reforms!

Let us recall some of the key concepts in sixties discussions of educational policy: pre-schooling, integrated comprehensive schools, co-operative (additive) comprehensive schools, sixth-form colleges, equality of opportunity, anti-authoritarian education, emancipatory education, curricular reform, operationalisation of learning objectives, strategies for learning objectives, learning processes, the didactics of graduated stages of learning, project studies, multimedia learning, pilot projects, publicity for education, educational technology, educational guidance, new mathematics, set theory, and sex education. Most of those terms were new at that time, and few played any part in public discussion before the mid-sixties. This list also documents the new emphases which were starting to increasingly dominate discussion of educational policy.

Some aspects of that discussion – such as comprehensives (see section 9.5) – are still controversial today. Alfred Heuß, for example, the doyen of German classical historians, has said sarcastically about the many new professorships in didactics: "It is difficult not to be satirical about modern didactics in Germany, but when something is declared to be a 'science' people here stand to attention without noticing how dubious the whole business is or that it can only survive because many people are interested in it for very personal reasons." With regard to the didactics of history, Heuß was of the opinion that people do not know what it is meant to involve. It was not apparent, in his view, that they had anything to say beyond what any reasonable person could think out for himself without too much trouble. "Everything remains technical, and it is precisely in the didactics of history that one learns least about history itself. It is not worth devoting attention to this subject.

Its total sterility, concealed behind a pretentious terminology, says nothing about history and its problems, but is merely a reflection of contemporary pedagogics. The plight of today's education is primarily brought about by insubstantial educational theory, which has nothing to say and therefore compliantly repeats borrowed slogans. One could long have moved to present concerns if our educational administrators possessed better judgement". Similar critical responses to a large number of innovations could easily be assembled.

The increasing number of tasks within educational planning could only be mastered through lasting improvement of the instruments and institutions involved. During that period planning departments (or groups) were created in most administrations with educationists and lawyers working together with economists, statisticians, psychologists, etc. The incorporation of electronic data-processing into administrative procedures was accompanied by the development of data-files on schools, pupils, teachers, available space, distribution of teaching, equipment, etc. Educational statistics were improved in an attempt to make them more informative. Important assistance was provided here by the secretariat of the Conference of Ministers of Education with its documentation, statistics, and forecasting sections. The view that decisions on educational policy should be backed as far as possible by research gradually became established in the sixties. Educational research was then expanded on a large scale (see section 4).

On 13. 10. 1967 the federal government presented the federal parliament with the first comprehensive report on the state of educational planning (Document no. V/2166). Federal Chancellor Kiesinger's "1967 Education Report" contains both federal and Laender documentation, informatively testifying to co-operative federalism. One of its classic misforecasts was the assumption that there would be an annual total of between 1 and 1.2 million live-births "during the next few decades". After over two decades of co-operation on educational policy between the main political parties (CDU/CSU, SPD, and FDP) despite differences of emphasis and intermittent controversies, 1969 saw a change in the Basic Law, presented as a "financial reform" by the Grand Coalition between CDU/CSU and SPD. This accorded the federal authorities powers within educational policy (see section 2.4). The Conference of Ministers of Education and the Laender ministries were not involved in the reaching of this decision. The main objective involved in this change in the Basic Law was to help assure educational uniformity which had been called into question by the large number of reforms and school experiments, and to accelerate university expansion through federal financial involvement (see section 2.6).

When the SPD/FDP alliance took over from the Grand Coalition in autumn 1969, the federal government had its first opportunity of implementing these new educational powers. The Federal Ministry of Education and Science was set up. In his October 1969 government policy statement, the then Federal Chancellor Willy Brandt made his much cited declaration that "Reforms should be headed by education and training, scholarship and research". The SPD/FDP government published its own initial objectives in the 1970 Education Report alongside the German Education Council's structure plan (see section 3). The main objectives of educational policy included re-organisation of pre-schooling, the introduction of comprehensives, and replacement of teacher training for specific types of school by a graduated course for everyone. In addition, around half of all the pupils within a specific age-group were to attain the university entrance qualification by 1980, a demand often recalled as an example of the characteristic educational euphoria of those years. The Federal-Laender Commission for Educational Planning and Advancement of Research (Bund-Länder-Kommission für Bildungsplanung und Forschungsförderung) has been operating since 1970 as an institution furthering co-operation between federal and Laender authorities in the sphere of educational planning – as laid down in article 91b of the Basic Law. The Commission was especially charged with preparing a long-term outline plan for development of the education system, and in 1973 it presented the Comprehensive Education Plan, the first of its kind. During the preparation of this plan it became clear that the decades of close co-operation between the main parties on educational policy had come to an end and been succeeded by a phase of confrontation. Profound differences mainly became apparent over the following issues: organisation of the orientation level, of secondary level I (comprehensive or tripartite school system), and of teacher training. The controversies continue today. The 1977 continuation of the Comprehensive Education Plan was discontinued in 1982. Different ideas about the objectives of education and training underlie these controversies. As early as the mid-seventies, the intellectual situation in the Federal Republic was characterised by great public discussion of the "turning-point" – often devoted to the problematic political and social consequences of educational reforms. Experiments aimed at making emancipatory ideologies the crucial element in upbringing and schooling were particularly criticised.

1.3 Objectives in Education and Training

Discussion about the objectives involved in education and training has persisted ever since the 1972/73 dispute over the Hesse guidelines for teaching social studies and German (which will later be considered in greater detail). The emphasis frequently changed, but reform of the upper level at *Gymnasium* (see section 10.1) and general education have been ongoing themes within German educational policy. Both are closely related and become subsumed in the great discussion about changing values. The 1972 reform of the upper level at *Gymnasium* resulted in what was viewed as the "canon" of general education at such schools being replaced by far-ranging "special education". Up to that time there had still existed an "unwritten" curriculum (albeit co-ordinated with Conference of Ministers of Education guidelines) outlining what general education should entail. The 1958 "Tutzing Requirements for Matriculation" drawn up by the Conference of Ministers of Education and the West German Rectors' Conference was the last such classical agreement. Anyone involved with students today is surprised at their lack of basic knowledge in history and literature, which is obviously no longer imparted. The debate about general education culminated in 1986 when the German Society for Education chose that as its theme at the bi-annual congress. The West German Rectors' Congress, the Federal Ministry of Education and Science, and the Donors' Association for German Science also organised conferences on this topic. The Federal-Laender Commission for Educational Planning and Advancement of Research had already declared in December 1984 that provision of a basic education in information technology was one of schools' tasks, and that all pupils should receive such training. The general objectives put forward included:

- Provision of training to enable informed use of computers as a tool for procuring and processing information
- Provision of an insight into the application of computers in the social, vocational, and private spheres.

It is relatively easy to reach agreement on such issues which primarily involve information and communications technology. Scarcely anyone disputes that information studies today constitute a demanding pre-academic course (for instance in the upper level at *Gymnasium*).

The question of what basic values school should transmit today poses very different problems. Such secondary virtues as diligence, orderliness, fulfilment of duty, or punctuality? Critics often object that such virtues were abused during the Nazi regime, and cannot therefore be unthinkingly taken over today. But did those virtues become vices because they were misused? Even "harmless" reminders of secondary virtues lead to a constant confrontation with the racist and chauvinist Nazi doctrine of education. Time and again since 1945 people have discussed whether education and training in pre-1933 Germany paved the way for National Socialist dictatorship and whether the end of the Weimar Republic can also be traced back to a lack of civic and democratic education. The year 1933 certainly demonstrates where political indifference and political failures – particularly on the part of the educated ruling class – lead. Education obviously does not provide protection from political stupidity. 1933's writing on the wall still exerts an impact today. An uninhibitedly patriotic form of education, such as shaped many generations in Germany as a matter of course, is no longer possible in its traditional form ever since the criminal activities of Hitler's dictatorship. That dilemma must now be resolved in a European context.

The Allied Supervisory Council agreed on 25. 6. 1947 on ten guidelines for reforming schools in the zones of occupation. They included: "Equality of educational opportunity should be established for all . . . All schools should put particular emphasis on education for civic responsibility and a democratic way of life. Curricula should have the objective of promoting understanding of and agreement with other peoples . . ." Those objectives were implemented.

During the post-war period the democratic parties succeeded – despite differences over educational policies – in assuring a basic consensus over the aims of education and teaching. That did not, however, entail the suspension of political antitheses. The possible range of such consensus between fundamental Christian, liberal, and socialist convictions is revealed in article 7 of the constitution of North Rhine-Westphalia, dating from 28. 7. 1950: "The primary objective of education is to awaken reverence for God, respect for human dignity, and readiness for social responsibility. Young people should be educated in a spirit of humanity, democracy, and freedom to demonstrate tolerance and respect towards other people's convictions and to pursue the ideals of the community of nations and peace in a spirit of love for their country and homeland."

These educational objectives remained virtually undisputed in the Laender until the end of the sixties. The extent to which they were – and are – actually achieved at school remains an open question. Since then there has been much discussion of what values should be transmitted to the younger generation at school. The previously mentioned values, which are outlined in Laender constitutions and school legislation, are regarded by many today as exalted aspirations akin to empty liturgical declarations. Quite a few people certainly see them as "Western detritus" – as Hans Magnus Enzensberger put it in 1968. It is obvious that a society can only hand down those values which its citizens actually practise and belive in. The great impetus towards secularisation, which affected first the Protestant and then the Catholic church, has within recent decades both largely dissolved religious ties and called values into question. In 1987 the Bavarian ministry of education exhorted all schools to once again base teaching on the prime educational objectives laid down in the Land constitution. Increased attention should thus be devoted to prayers at school in the spirit of the objective of "reverence for God". As far as can be established, those other Laender which still had school prayers have long since given them up, and thus they are scarcely practised outside Bavaria. Whether prayers are a suitable way of drawing attention to constitutional norms remains an open question.

Ever since the mid-sixties, people urging reform have put forward the view that the supreme objective within any teaching is the emancipation of pupils. Concepts of emancipatory pedagogics exerted a particularly broad impact in conjunction with the sixties student movement. The term "emancipation" is, however, open to diverse interpretation. It is disputable whether emancipation is of any importance in education and teaching – and, if it is, how it should be viewed. Emancipation sometimes became an empty formula within the concept of a radically anti-authoritarian education designed to "beat" the system. Many positions were – and still are – discussed within what are termed socially critical, emancipatory educational concepts in the wake of Marxism, neo-Marxism, and psychoanalysis. Such criticism centres upon the traditional comprehension of achievement, conventional forms of school and the subjects taught, and the related teacher training. It is maintained that such aspects should be outgrown as relics of "late capitalism". That raises the question of the extent to which such "anti-system" objectives accord with the constitution. After all, the objective of education and training can hardly be to prepare young people for an illusory utopian future. The objectives and subject-matter of all educational courses must instead conform with constitutional norms. The Federal German Basic Law lays down that ideological pluralism and libertarian democratic objectives should underlie the education system. Disputes over educational objectives, particularly in the seventies, led to intensified "re-ideologisation". Hardly had the denominational link between teacher training and *Grundschulen* and *Hauptschulen* apparently been annulled after a struggle lasting decades – fulfilling almost half a century later the objectives laid down in the 1919 Weimar constitution –, when a new wave of largely leftist "ideologisation" established itself. At the time Eugen Lemberg rightly recalled: "An objective, neutral education system has never existed within the entire course of world history. Every school system is based on an ideological concept. Such a system could not function if it were not founded on a value system . . . Extreme liberalism attempted in all seriousness – despite itself being ideologically based and directed – to bring about education in objectivity and capacity for independent judgement by recommending that young people should be presented with a diversity of world-views and conceptual possibilities so that they could make their own choice. By now it is clear that such a procedure is both highly inappropriate and also inferior to any other system demonstrating a world of clear-cut values. That very principle underlies the fascination of all 'movements' and youth revolts which arise after periods of liberalism or pluralism, tearing down the supposed barriers against all kinds of fanaticism." The German Education Council's structure plan, calling in 1970 for more academic "learning", aimed at a dilatory compromise with the trend criticised by Lemberg. "The conditions of existence in modern society demand that processes of teaching and learning are oriented towards scholarship . . . The academic orientation of subject-matter and teaching methods applies to lessons at every age-level." The school thenceforth comprehended itself as a source of "basic scientific training". The many problems involved in such an orientation for all pupils from primary education to qualification for university cannot be outlined here. What concept of scholarship or theoretical model should exert a determining influence? It is also disputable whether a school subject can simply be derived from a particular academic discipline. It must be asked too whether such an academic emphasis within teaching does not promote one-sided intellectualism, contributing towards the much-lamented decline in character-training at school. As already mentioned, disputes became particularly fierce when in 1972/73 Hesse introduced guidelines laying down the objectives of learning for German and social studies. These were based on emancipatory, socially critical theories of socialisation and communication. The discussion thus initiated once again raised the question of the meaning of education and training, which was a positive development. People once again became aware of the question of personal and collective (i. e. national) identity. The Conference of Ministers of Education's resolution on "The German Question in Schools" (see section 18.7) provided a striking response to the question of national identity.

The discussion a decade ago on educational issues, on the nature of binding values and norms in education and training, are illustrated in two documents in appendix 30: the nine theses put forward on 9/10. 1. 1978 by the "Encouragement for Education" forum, and the Tübingen counter-declaration of March 1978. Theses and counter-theses demonstrate the controversial nature of the basic issues in education and training. Nothing has changed up to the present day. Hasso von Recum recently summarised: "After years of reforming zeal, people recognised with dismay that character-training was vanishing, or had already vanished, from schools. It was decided to change course. Schools should once again provide character-training, transmit values, and make a contribution to the stabilisation of social standards. For over a decade now, an attempt has been made to give a fresh impetus to the transmission of values so as to stress demands for 're-emphasis on character-training'. The outcome is viewed as disappointing."

It is hardly to be expected that a consensus, accepted – as in the post-war period – by all the democratic parties, will be achieved in the foreseeable future. The 1931 quotation from Karl Jaspers at the beginning of this introduction shows that the current situation with its orientational problems is not so new and unusual. This wrestling with the objectives of education and training is not therefore the outcome of current political, ideological, or regional differences, but is deeply rooted in German tradition. The denominational division of Germany has, after all, influenced the education system since the 16th century. Since that time there have not been any centrally determined unified objectives in education and training. Today, after centuries of theological controversy, a broad spectrum of agreement now exists between the faiths, so perhaps it will also be possible to achieve critical accord on "ecumenical educational objectives". The quotation from Eugen Rosenstock-Huessy, also at the beginning of this introduction, offers a starting point. That will involve taking into account Germany's historical experiences under a totalitarian National Socialist dictatorship of education. In a speech marking the 40th anniversary of the ending of the Second World War, Federal President Richard von Weizsäcker declared: "Overcoming the past is not what is at issue. That cannot be done. The past cannot be retrospectively changed or wished out of existence. But anyone who closes their eyes to the past becomes blind to the present. Anyone who does not want to remember acts of inhumanity once again becomes susceptible to new dangers of infection."

2. The Federal Structure

2.1 Area, Population, and Economic Factors

The Federal Republic of Germany comprises the Laender of Baden-Württemberg, Bavaria, Bremen, Hamburg, Hesse, Lower Saxony, North Rhine-Westphalia, Rhineland-Palatinate, Saarland, and Schleswig-Holstein plus West Berlin which has a special status in accordance with the 1971 Four Power Agreement. There are considerable differences between the federal states in terms of area, population, economic development, and tax income. The largest by area, North Rhine-Westphalia, had 16.8 million inhabitants in 1986, followed by Bavaria (10.9 million), Baden-Württemberg (9.2 million), Lower Saxony (7.1 million), Hesse (5.5 million), Rhineland-Palatinate (3.6 million), Schleswig-Holstein (2.6 million), and Saarland with just over a million. The smallest of the city-states is Bremen with 657,000 inhabitants. Hamburg has 1.5 million, and West Berlin 1.8 million. The total population of the Western zones of occupation, later the Federal Republic of Germany, rose from 46.2 to 62.1 million between 1946 and 1974, and has since declined by a million (61.1 million in 1986). The great increases in birth-rates to over a million a year in the fifties and sixties very much influenced expansion of the education system. The birth-rate has been falling since the mid-sixties, and during the past decade was around 620,000 per year. The crucial importance of the demographic factor in the development of educational policy will become repeatedly apparent when we come to consider the individual stages within the system.

The total population figures for 1986 include 4.6 million inhabitants of foreign origin, among them 1.4 million Turks, around 600,000 Yugoslavs, 530,000 Italians, 280,000 Greeks, 150,000 Spaniards, and some 80,000 Portuguese. The total number of foreign workers and their dependants has only increased slightly in recent years. 811,000 foreign children attended German schools in 1986 (see section 18.3).

The Federal Republic of Germany covers an area of 248,707.6 sq. km. There is an average of 245 people (1985 figures) per square kilometre, making the Federal Republic one of Europe's most densely populated countries. The country possesses relatively few raw materials but is a highly-developed, export-oriented industrial state. Almost 30% of the gross national product of around 1,800 milliard DM was exported in 1985. In 1984 41.8% of those gainfully employed were in manufacturing industry, 18.2% in commerce and transportation, 34.8% in the service sector, and just 5.2% in agriculture, forestry, and fishing. After a long period of full employment from the mid-fifties until the start of the seventies (apart from brief disruptions), there has been increasing unemployment since the mid-seventies. In summer 1988 2.13 million people were out of work, amounting to a federal average of 8.4% unemployment. Greater attention will be devoted to the problem of unemployment among the young and its impact on the education system in section 10.3.

2.2 Co-operation and Distribution of Powers in the Educational System

When the Federal Republic of Germany was established in 1949, education remained a Laender responsibility. Laender control over education remains the main aspect of their autonomy up to the present day. The Basic Law, the Federal German constitution, did not accord the federal authorities any powers of educational jurisdiction. There were several decisive reasons for that. Constitutions for the Laender inclusive of school laws regulating education already existed. The main reason, however, was the desire to avoid any renewal of the centralisation which had led until 1945 to enforced ideological conformism in education under Nazi rule – by way of the Reich Ministry for Science, Education, and Public Enlightenment established in 1934. Development of the Federal Republic proceeded by way of deliberately building on the old German federal tradition of Laender autonomy. The Basic Law does not therefore contain any comprehensive regulation of the education system. Only a few fundamental issues – such as freedom of art, scholarship, research, and teaching, state inspection of schools, religious education as a regular subject at state schools, and guarantees of freedom for private schools – were uniformly regulated for the whole of the Federal Republic in articles 5 and 7 of the Basic Law, extending back to the 1919 Weimar constitution. The Basic Law lays down that the education system forms part of a democratic welfare state based on the rule of law. It remains, however, open whether a fundamental right to education can be derived from the basic rights covered in articles 1–19 of the constitution – in other words the state's obligation to remove social and educational disadvantages and to guarantee the greatest possible degree of equality of opportunities for all. Paragraph 1 of article 20 of the Basic Law does nevertheless expressly proclaim that the Federal Republic of Germany is a "democratic federal welfare state".

Until 1969 the Laender had sole responsibility for education, but then the federal authorities were granted limited powers – such as the right to enact outline legislation with regard to the general principles involved in the university system and the right to have a say in educational planning (see section 2.4). The federal authorities were not, however, accorded any right to produce outline legislation for the school system as a whole. There is therefore no school legislation applying to the whole of the Federal Republic of Germany. The administration of schools and universities remains a Laender responsibility, but since the Basic Law (articles 11 and 12) guarantees all Germans the right of freedom of movement and free choice of training and employment throughout the Federal Republic, the Laender are obliged to co-operate with one another and with the federal authorities – particularly with regard to implementing federal guidelines as Land legislation as, for example, in the case of university legislation.

2.3 Standing Conference of Laender Ministers of Education and Cultural Affairs

The Standing Conference of Laender Ministers of Education and Cultural Affairs (Ständige Konferenz der Kultusminister der Länder in der Bundesrepublik Deutschland) has been in existence since 1948 as an instrument for autonomous co-ordination of educational policy. Over 120 Ministers have belonged to this body since its modest beginnings. There have been very few – albeit always important – women among the Conference's leading lights, including Christine Teusch and Hanna-Renate Laurien (both CDU) and Vera Rüdiger (SPD). Among the men involved in the immediate post-war phase of reconstruction were Theodor Heuss (FDP and later Federal President, who held office in Württemberg-Baden in 1945/46 and was among those who brought about establishment of the Conference, but was not himself a member since he resigned before the organisation was set up), Alois Hundhammer (CSU), Joachim Tiburtius (CDU), Heinrich Landahl (SPD), Erwin Stein (CDU), and Adolf Grimme (SPD, the last Prussian and the first Lower Saxony minister of education). During the fifties there were such luminaries as Willy Dehnkamp (SPD, later Mayor of Bremen), Hans Wenke (CDU), Ludwig Metzger (SPD), Eduard Orth (CDU), and Edo Osterloh (CDU). Wilhelm Hahn (CDU), Carl-Heinz Evers (SPD), Moritz Thape

(SPD), Ernst Schütte (SPD), Ludwig von Friedeburg (SPD), Paul Mikat (CDU). Bernhard Vogel (CDU, for years Prime Minister of Rhineland-Palatinate), Werner Scherer (CDU), and Hans Maier (CSU) made a name for themselves during the era of educational reforms.

Resolutions and recommendations by the Conference demand unanimity among the ministers of education from all eleven Laender. Conference resolutions constitute recommendations to the Laender, which only become legally binding when they are promulgated in the form of state laws, decrees, and regulations. Conference agreements are prepared by the organisation's Bonn-based secretariat together with four specialised committees – covering schooling, schools abroad, universities, and art and adult education. Special issues are discussed in sub-committees and study groups. There are also commissions on international affairs, sport, university admission, and reform of studies.

The conference secretariat, headed by a secretary-general, is responsible for co-ordinating activities, and is assisted by an Educational Exchange Service, the Office for Education Abroad, and the Office for Standardisation and Educational Economics, the successor to the former Laender Institute of School Construction. The Office for Education Abroad issues evaluations of the equivalence of foreign qualifications at school and university.

The need for unanimity in Conference resolutions entails great pressure towards compromise. As long as the education system developed comparatively slowly during the post-World War II phase of reconstruction and was not at the centre of political controversy, this form of co-ordination marked up considerable successes. Up to the mid-sixties the ministers of education succeeded in maintaining a high degree of uniformity in the development and expansion of education. They played a decisive part in the preparatory work for three agreements reached by Laender prime ministers on unification of aspects of the education system: the agreement on standardisation in schools (Düsseldorf Agreement, 17. 2. 1955) and a revised version (Hamburg Agreement, 28. 10. 1964 and 14. 10. 1971), and the agreement on standardisation of degree-granting colleges of higher education (31. 10. 1968) providing for complete reorganisation of this important aspect of the university system (see section 15.7). The Düsseldorf and Hamburg Agreements only relate to general rather than vocational education. They contain regulations on length of holidays, staggering of the summer vacation, unified nomenclature, recognition of examinations, and terminology relating to grades. In 1964 nomenclature and forms of organisation in general schools, and the order in which foreign languages are taught, were newly regulated. The limitations imposed by the Düsseldorf Agreement on the sequence for teaching foreign languages at *Gymnasium* were eased. The 1963 Franco-German Treaty of Friendship exerted an influence there with French taking over from English or Latin as the first language from class 5. The way was also opened for the establishment of special and observation levels in classes 5 and 6, and for organisational separation between the *Grundschule* and the *Hauptschule*. Compulsory full-time schooling was unified at nine years, and the trend towards prolongation of schooling received expression in a regulation allowing for a tenth year at *Hauptschule*. The Düsseldorf Agreement's restrictions on possibilities of experimentation at school were considerably alleviated. The Hamburg Agreement also brought to an end decades of controversy by laying down that the school year should start in the autumn rather than as previously – except for Bavaria – at Easter. The Hamburg regulations were thus more flexible than their precursors, guaranteeing the necessary freedom for new developments. The two agreements regulate specific aspects of education, assuming the functions of what in centralised states would be legislation on the organisation of schools. The Hamburg Agreement was later extended by Conference agreements on reciprocal recognition of examinations and grades – for instance, of qualifications earned at comprehensives (see section 9.5).

Co-operation and autonomous co-ordination among the Laender became more difficult during the second half of the sixties when educational structures were increasingly involved in partial reforms. Leading political figures in all the important parties were convinced that there should be greater educational uniformity and comprehensibility and that the federal authorities should be granted a say in overall policy. The emphasis was on federal involvement in the financing of university expansion. After years of debate on the establishment of a "Federal Ministry of Education", a constitutional change was finally agreed under the Kiesinger/Brandt Grand Coalition between CDU/CSU and SPD, creating the preconditions for increased federal involvement in educational policy. Only since 1969 do the federal government and parliament have limited powers within education (see section 2.4).

This development affected the Conference of Ministers of Education. When the Federal-Laender Commission for Educational Planning (see section 2.5) was set up in 1970 under the SPD/FDP federal government, the Conference moved somewhat into the background as far as educational policy was concerned. The situation changed again at the end of the seventies when it became apparent that national educational planning was not feasible over the longer term. The task of the Conference of Ministers of Education remains the co-ordination of educational developments among the Laender, particularly with regard to structures, curricula, and qualifications. Critical commentators on educational policy have often written off the Conference of Ministers of Education, but it has turned out to be indispensable in crisis situations – despite sometimes failing to reach agreement on a specific issue. That is, for instance, demonstrated in the endeavour – launched in 1980 and terminated in 1983 without any joint outcome – to reach agreement on treatment in the classroom of peace, defence, and the federal army. All that became apparent was the irreconcilability of Laender attitudes determined by political allegiances.

2.4 Federal Ministry of Education and Science

The Federal Ministry of Education and Science (Bundesministerium für Bildung und Wissenschaft) has been in existence since the autumn of 1969. The Brandt/Scheel Grand Coalition thereby demonstrated that it wanted to make full use of the powers over educational policy accorded the federal authorities shortly beforehand. The Ministry thus oversees federal responsibilities in the educational sphere, apart from cultural policy abroad, which is the responsibility of the Foreign Office. The Ministry of Education and Science is in charge of the following:

- Educational planning and research
- Assistance for training and young scholars
- Vocational training inclusive of assistance
- General university legislation, university expansion, and the promotion of scholarship.

Federal powers affect the following aspects of education. Group A mostly existed before 1969 but were to some extent then administered by other ministries. Groups B and C were added to the Basic Law in May 1969, making it possible for the federal authorities to pursue an autonomous education policy for the first time.

A) Concurrent Legislation

- Non-school vocational training and further training (Basic Law, art. 74, nos. 11 & 12)

- Regulation of training assistance for pupils, trainees, and students (Basic Law, art. 74, no. 13)
- Assistance for scholarly research (Basic Law, art. 74, no. 13)
- Regulation of pay and welfare for public service employees inclusive of teachers and university lecturers (Basic Law, art. 74a)

B) Outline Legislation

- General principles for the university system (Basic Law, art. 75)

C) Joint Functions

- University expansion and building inclusive of university clinics (Basic Law, art. 91a)
- The federal authorities' right to involvement (so far as feasible) in educational planning and the promotion of scholarly institutions and research projects of national significance (Basic Law, art. 91b)

During the seventies the federal authorities succeeded in implementing four laws affecting educational policy: the University Outline Law (see section 15), a law providing protection for participants in correspondence courses (see section 17.2), a law regulating assistance for training places (see section 10.3), and the Federal Training Assistance Law. All four laws regulate aspects of the education system. The 1976 University Outline Law (Hochschulrahmengesetz) has been amended several times since then. It establishes the framework for solving university structural problems and for reforming courses of study and university organisation. The law on correspondence courses is intended to protect students from misleading advertising and dubious contractual conditions, and to ensure inspection of all courses. The law regulating training places is meant to establish the financial and organisational conditions for better long-term provision of training. Every year the federal authorities publish a comprehensive report on vocational training. Particular emphasis is put on assistance for students, which is regulated in the Federal Training Assistance Law (Bundesausbildungsförderungsgesetz or BAföG). The provisions of this law, approved in 1971, took the place of Laender assistance (Honnef Model) and have in the meantime been modified eleven times so as to keep up with social and economic developments.

The Federal Ministry of Education and Science also provides increased support beyond what is normally available at schools for the advancement of especially talented children and young people. Financial support has been given to pilot projects at schools and universities and in vocational training. For some years now there have been national competitions for pupils involved in information studies. The federal authorities contributed considerable sums towards university expansion (see section 2.6), and the Ministry is also responsible for bilateral activities within European Community co-operation on educational policy. In November 1987 – after a break of almost 40 years – there was the first contact at ministerial level between the Federal Republic (Jürgen W. Möllemann, Federal Minister of Education) and the GDR (Hans-Joachim Böhme, Minister for Universities and Vocational Training). The discussions covered possibilities of co-operation in the university sphere and inter-state contacts on the basis of the 1986 cultural agreement between the two Germanies.

2.5 Federal-Laender Commission for Educational Planning and Advancement of Research

As already mentioned, the federal authorities have since 1969 had a right to a say in educational planning, as laid down in article 91 of the Basic Law. The details were regulated in the administrative agreement (25. 6. 1970) on establishment of a Federal-Laender Commission for Educational Planning and Advancement of Research (Bund-Länder-Kommission für Bildungsplanung und Forschungsförderung). Promotion of research was added to the Commission's sphere of work on 28. 11. 1975. The Conference of Ministers of Education serves co-ordination of educational policy among the Laender, whereas the Commission is a standing forum for all the issues in education and promotion of research that jointly affect the federal authorities and the Laender. The Commission is headed by a secretary-general and based in Bonn. Its staff do the groundwork for meetings of the Commission, its committees, and study-groups. For its work on educational planning, the Commission consists of seven representatives of the federal government and one representative from each of the Laender governments. Votes are, however, equally balanced between the two (11:11). A majority of three quarters of members' votes is necessary for the passing of any resolution. When assistance for research is at issue, seven of the Commission's members are appointed by the federal government and Laender governments delegate two each with the necessary specialist knowledge and financial expertise, who nevertheless have a single vote between them. The ratio of votes thus remains 11:11. The Commission issues recommendations which are presented to the federal and Laender governments as a basis for consultation and decision-making. A resolution requires the agreement of at least nine of the heads of government, but is only binding on those who vote in favour. Representatives of the Science Council (Wissenschaftsrat), the chief local authority organisations, and the Federal Institute for Vocational Training (see section 4) also attend Commission meetings in an advisory capacity. The secretary-general of the Conference of Ministers of Education and the secretary of the cultural committee of the Federal upper house are also permanent guests. The chairmanship of the Commission alternates annually between the federal authorities and the Laender.

The Commission's main task in the seventies was preparation of the Comprehensive Education Plan (Bildungsgesamtplan) providing long-term guidelines for co-ordinated development of the overall education system. This first plan to be jointly devised by the federal and Laender authorities was approved after long and tough negotiations in 1973. The Plan contained guidelines for educational development up to 1985, but it was not possible to reach unanimous agreement on far-reaching structural changes within the education system. CDU- and CSU-ruled Laender differed with regard to the orientation level, the integrated comprehensive school, and teacher training. Dissent over educational policy could not be bridged. Even though the overall plan was not implemented with regard to co-ordinated structural development throughout the Federal Republic when it came to the controversial aspects, it was nonetheless very useful as a means of planning quantitative objectives such as teacher-pupil ratios. Increasing divergences over educational policy led in 1982 to the breakdown of the already largely agreed continuation of the Comprehensive Education Plan until 1995. Viewed superficially, this was the outcome of disputes over the costs involved in education, but the deeper reason lay in Laender efforts to avoid restriction of their freedom of action. A number of Laender were not happy about being restrained by comprehensive educational planning, constantly liable to being outvoted by federal representatives. The Commission is different to the Conference of Ministers of Education in that there is less pressure on the members to show partner-like harmony. Unanimity, excluding imposition by majority, is not stipulated. In 1981 the then Lower Saxony Minister of Education (CDU) even called for dissolution of the Commission.

The Commission made a particularly important contribution to assisting and supervising educational pilot projects and to the financing of educational research. It worked closely together with the representatives of schools, scholarship, and research. The impact of new media and technologies on school, training, and university were investigated by the Commission as early as 1984, and guidelines for the university sphere were approved on 16. 12. 1985. This concept outlined the tasks for universities resulting from the rapid dissemination of new techniques of information and communication. The federal and Laender authorities reached agreement on an investment programme aimed at inducing universities and polytechnics to make greater use of computers in teaching and studies. The programme from 1985 to 1988 involved a total sum of 250 million DM, jointly provided by federation and Laender. In 1986 the Commission approved an outline concept for courses in information technology within further training.

Assistance for educational pilot projects has focused since 1983 on the following spheres: foreign children and young people; handicapped children and young people; vocational training; universities – particularly reform of study courses; new information and communication techniques; environmental education; and cultural education. Since the start of the seventies, the federal and Laender authorities have used the Commission for channelling assistance for a large number of pilot projects devoted to improving the situation facing handicapped youngsters. 115 million DM was made available for that purpose between 1970 and 1986. Since 1980 the integration of handicapped and other children has been assisted in a multitude of ways, and investigations conducted into how new technologies can be utilised in this sphere.

In 1985 the Commission approved recommendations for overcoming unemployment among teachers. It was proposed that employment should be guaranteed for young teachers, despite declining numbers of pupils, so as to prevent distortions within the age-structure of the teaching staff.

Structural problems in the relationship between the education system and employment opportunities constitute an ongoing theme within the Commission's work. Even though the updating of the Comprehensive Education Plan, for years the core of the Commission's operations, came to grief, resulting for a while in declining significance for the organisation, recent years have shown that there continue to be sufficient fruitful areas of activity. If the 1981 suggestion that the Commission be disbanded had been followed, that would have been a set-back for co-operation between the federal authorities and the Laender. Article 91b of the Basic Law does, however, state that the federal authorities and the Laender can, but do not have to, co-operate on educational planning by agreement. Neither side therefore is compelled to exert their powers jointly. After many years of co-operation the advantages and limits of overall educational planning have become clear, and it may well be that one day a renewed and more successful attempt will be made at developing another Comprehensive Education Plan. Perhaps the magic ring of the year "2,000" will be an incentive to educational policy-makers.

2.6 Planning Committee for University Construction

Article 91a of the Basic Law lays down that the expansion and development of universities inclusive of medical clinics is a task for which the federal and Laender authorities are jointly responsible. The Planning Committee for University Construction (Planungsausschuß für den Hochschulbau) was legally established in the law regulating assistance for university construction (1. 9. 1969, revised on 3. 9.1970 and 23. 12. 1971).The Committee has the task of drawing up a four-year outline plan, which is subject to annual reassessment. Between 1970 and 1986 the federal and Laender authorities devoted some 40 milliard DM to university construction – around 19 milliard DM from the federation alone. The federal and Laender authorities are jointly concerned with enabling the universities to provide a sufficient, adequately qualified and regionally balanced supply of places for study and research (in terms of assignment of function, disciplines, numbers, size and location) and with supplying suitable buildings for this.

Two federal ministers and a minister from each of the Laender belong to this Committee with parity of voting (11:11). The Federal Minister of Education and Science is the body's standing chairman and runs the committee's business. The seventeenth outline plan for the period from 1988 to 1991 was approved on 9. 7. 1987. Plans are always co-ordinated with the Science Council. The seventeenth plan provides for over 600 building projects with a total cost of 7.3 milliard DM. Between 1970 and 1986 some 314,000 additional study-places were created, and large numbers of existing university buildings modernised.

2.7 Constitutional and Administrative Jurisdiction in Education

Overall educational law is subject to the legal control of independent courts. Decisions by the constitutional and administrative courts have become of increasing significance for educational policy within the past two decades. The task of constitutional jurisdiction also involves instituting or assuring balance between state sovereignty over schools, parental rights, and teachers' educational freedom. The federal constitutional court reached landmark judgements on such matters as university legislature, the regulation of university admission, and sex education in schools. Judgements by the Hesse state court concerned reforms of the upper level at *Gymnasium* and the mixed-ability level; and decisions by the Hesse administrative court affected the transition from primary school to secondary education. In its judgement of 14. 7. 1978, the federal administrative court pointed out that legislators are obliged to take essential decisions rather than leaving them to school administrations. A decision by the supreme courts' joint senate covers vocational training. Public discussion of "over-legalisation" of the education system documents tension between administration of justice on the one hand and school and university legislation on the other. The term "legislation" involves a considerable degree of criticism – for instance of legal regulations increasingly restricting teachers' educational freedom. Amended Laender school laws in recent years – as in Bavaria (1982) and Rhineland-Palatinate (1984) – take into account current legal decisions. The Bavarian constitutional court thus ruled in 1980 that the demands made of legal regulation of school organisation had fundamentally changed during the past two decades, making necessary new laws. Whether highly detailed legal regulations, which are difficult to change, or flexible administrative directives, which can be adapted more easily to current developments, are more practical for schools remains an open question. The 1976 German lawyers convention produced lively discussion of what legal principles should underlie state schooling.

2.8 Administration and Finance

The division of powers laid down in the Basic Law gives the Laender comprehensive responsibility for organisation of education. Constitutional regulations, laws, and decrees in the individual Laender were and are decisive for development of the system. They determine the objectives of education, and regulate compulsory schooling, establishment and maintenance of schools, local control of schools, all levels of teacher training, supervision of schools, school administration, co-operation between parents, teachers, and pupils on the organisation of life and work at school, pupil-status, free schooling and teaching aids, and assistance for education.

In the university sphere powers have been divided since 1969. The federal authorities are responsible for outline legislation, and the Laender for everything else (see section 15). The Laender have autonomous powers over the establishment and organisation of universities, legal jurisdiction, finances, and staffing policy. The individual universities are self-administering and implement state policy with regard to personnel, budget and finances, etc.

The responsibility for administration of schools and universities within a single Land devolves on a specific member of government. Until the sixties a single minister – the minister of education – was usually responsible, except in the city-states of Hamburg and Berlin. Administrative responsibility for both schools and universities at present only survives in Rhineland-Palatinate, Saarland, Schleswig-Holstein, and (once again) Bremen. In the other Laender schools and universities are administered by separate ministries (see appendix 31 for addresses). The long-established Bavarian Ministry of Education and the Arts was the most recent to be split up, causing considerable political upheaval. Whether such divisions into two spheres of responsibility, closely related institutionally, will prove worthwhile over the longer term remains to be seen. Even though the range of tasks facing a traditional ministry of education is extremely wide, much speaks in favour of keeping administration of the entire system under one person.

The activities undertaken by the Federal Minister of Education and Science have already been outlined in section 2.4. Here it must be stressed – for clarity's sake – that not one school or university is directly answerable to the ministry, which has very limited powers within specific spheres. Schools and universities are a Laender responsibility.

The Laender parliaments – and the federal parliament with regard to state responsibilities – are of decisive importance in the organisation of the education system and keeping a watch over government activities. Laender and federal parliamentary debates on educational policy are very informative about current developments.

Paragraph 1 in article 7 of the Basic Law lays down that the school system as a whole is subject to state supervision. Inspection and administration of schools are a Laender responsibility, and in the eight non-city states are usually organised in a three-tier system:
- lower level schools inspectorate on the municipal and communal level
- middle-level schools inspectorates on the district level covering larger government administrative areas

- higher schools inspectorates: the state ministries with responsibility for schools, and senators for education in the three city-states.

Private schools (see section 13) are also subject to state supervision. The federally-backed vocational schools, polytechnics, and universities (i. e. the federal army universities) are also liable to legal supervision by the Land administration responsible.

The number of people involved in educational administration considerably increased in the sixties and seventies in order to cope with the abundance of tasks facing federal, Laender, and local authorities as a result of expansion of the education system. In Bavaria, for instance, ministerial appointees with responsibility for *Realschulen*, *Gymnasien*, and *Fachoberschulen* (technical secondary schools) are in charge of intensification of supervision and advisory facilities. Space does not, however, permit consideration of a number of innovations in educational administration arising out of regional reforms or changes in organisational structure.

74.8% of the overall 1987 Federal German education budget was met by the Laender, 17% by local authorities and administrative bodies, and 8.2% by the federal authorities, amounting to a total of 91.6 milliard DM. In addition private industry put up an estimated 32.8 milliard DM (1986), mainly for in-firm vocational training, and the Federal Labour Office also provided 7.2 milliard DM for training measures in the same year.

The state school system is jointly maintained by the Laender, local authorities, and municipal bodies. Expenditure on teachers is usually met by the Laender whilst costs of materials (plus office and maintenance staff) are mainly covered by local authorities. The German Urban Convention's schools' committee facilitates exchanges of experience between the local authority departments concerned with schools, particularly in large cities.

Private schools are also eligible for Laender subsidies if they operate for the public good and replace state schools (see section 13).

Staffing costs at universities are completely met by the Laender – apart from church colleges, institutions fully maintained by the federal authorities (see sections 15.8 and 15.9), and other private colleges.

Experience has long shown that Finance Ministers are the 'real Ministers of Education', so it would seem obvious to outline their influence over educational policy. That is not, however, possible within the confines of this survey.

2.9 Education and Society

It is a truism that education and society are closely related. There was particularly lively participation in the great debates on educational reform during the sixties and early seventies. Parents and parental associations, teachers and teachers' organisations, political parties, churches, employers' groupings and trade unions, and industrial circles and research institutes all express their views on educational issues in a great variety of ways. Their attitudes are widely reflected in the media.

School and parents

Parental participation in education finds expression in a large number of legal regulations. The Basic Law lays down that bringing up children is the natural right and supreme obligation of all parents (art. 6, para. 2). The state's duty to provide education has the same status as parental rights within the education system. In its judgement on sex education, the federal constitutional court ruled (21. 12. 1977) that the state has the indisputable right and the duty to determine curricula together with learning objectives and subject-matter whilst taking parental rights into account. The state was also held to be obliged to pay heed in schools to parents' responsibility for their children's overall upbringing, and to be open to the diversity of views on educational issues to the degree that is compatible with an orderly state school system.

The co-operation of schools and parents is regulated in detailed Laender legislation. All the parents of the children in a specific class choose a parents' council, and all such councils constitute the school parents' council, which together with other such bodies provides delegates for similar institutions at the local, district, and regional levels. Laender or national councils have varying rights of participation, and their advice is called on in basic issues within school policy such as the planning of curricula. The Hesse constitution (art. 56, para. 6) even accords the Land parents' council a right to co-determination. At the start of the seventies, the dispute over new curricula –

such as the Hesse guidelines for German and social studies –, the introduction of mixed ability levels, and the establishment of integrated comprehensives resulted in unusual mobilisation of parents. Both the advocates and the opponents of integrated comprehensives formed parental associations. Church parent organisations also exist. The national parents' council linking various parental associations serves as an action group at the federal level.

When in 1977/78 the North Rhine-Westphalia Land government attempted to replace the tripartite school system by a comprehensive-style co-operative school with an earlier orientation level, a "Civic Action Group for a Referendum against the Co-operative School" was established. This campaign attracted an astonishing response. 3.63 million people – almost 30% of those entitled to vote – supported a cause where the signatures of 20% of voters would have been sufficient. The Land government and parliament in North Rhine-Westphalia then amended the disputed law on school administration, paying heed to popular wishes. This demonstrates the extent to which parents can be mobilised as a result of educational developments, and how they can gain influence over school legislation and administration by way of the limited possibilities offered on the various levels of parental organisation. In other Laender too, referenda have also been used by oppositions to correct or block governmental decisions on school policy.

Political Parties and Education

The political parties are of crucial importance in the organisation and further development of the education system. The constitution mainly assigns the power to take political decisions about education to parliaments in the Laender and city states. However, debates on educational policy also occur in the federal parliament and the upper house to the extent that their sphere of competence is involved – and during the past two decades the federal authorities have taken on greater powers within educational policy. Local, town, and district councils reach educational decisions within their spheres of reference. The five parties at present represented in the federal and Laender parliaments – SPD, CDU, CSU, FDP, and The Greens – have differing and sometimes antagonistic views about the objectives of educational policy. The often tough struggle over the course taken by education makes clear that such issues are also questions of power, which must be determined by political means. The parties each have their own policy commissions and study-groups, laying down an educational programme. The viewpoints of the five parties can only be considered very briefly here. Let us first consider the distribution of powers. At the beginning of the Fifties the FDP urged the establishment of a Federal Ministry of Education, and after 1969 strove for fundamental federal legislative powers extended over the entire education system inclusive of schools. It recently called for federal responsibility with regard to compulsory schooling. Such an amendment of competences would considerably reduce Laender responsibilities for the school system. Neither the SPD nor the CDU/CSU are in favour of that at present, and both largely support continuation of co-operative federalism. The SPD/FDP government's 1978 report on structural problems within the federal educational system led to lively discussions, which, however, mainly revealed the report's defects and led to strengthening of federalism as a basic principle.

Party attitudes to the contents of education and individual structural issues will be treated in later discussions. It is only possible here to briefly outline basic positions. Particularly disputed are the orientation level (mixed ability level), the organisation of secondary levels I and II, teacher training, and the structure of the university system. The CDU/CSU advocates a flexibly organised and vertically structured school system. It views the *Hauptschule, Realschule, Gymnasium*, special school, and vocational school as each serving a particular educational purpose with the result that each has an autonomous profile. Only in such a structured system do parents retain a clear-cut right to co-determination of their children's career at school. A pupil's abilities and parental expectations rather than state planning are thus seen as the decisive factor in decisions about the education a child receives. The SPD has advocated horizontal structuring and the establishment of integrated comprehensives since 1964. In their view, only in this way can equality of opportunity be achieved, and shared basic education for all and individualisation of courses through wide-ranging and differentiated educational institutions inclusive of polytechnics guaranteed. Further, equivalence of general and vocational courses can only be achieved through complete integration of both spheres in a comprehensive education system. Integration is intended to connect – in terms of content and organisation – courses aimed towards both vocational qualification and university studies, making it possible for young people to aquire such initial aptitudes and at the same time (or just a little later) to qualify for college admission. In 1972 the FDP also supported the comprehensive as an "open school" which should basically be conceived as all-day schooling. As early as the sixties Liberal educational policy proclaimed "the right to education", but in recent years the demand for an "open school" has strikingly diminished. The FDP's educational programme today instead focuses more on assistance for anyone of ability, and on compensating for social disadvantages. It is declared that only early assistance for socially deprived children makes achievement possible. Outstanding ability, no matter what the social background, should therefore receive differentiated and additional assistance. Anyone who rejects such differentiation in terms of individual ability makes excessive demands on some children and obstructs the possibilities of achievement of others. Equality of opportunity – says the FDP – does not entail equality of results. Free unfolding of personality is ultimately best assisted by a wide range of educational opportunities. What is needed – believes the FDP – is free competition between ideas, diversity of types of school, more opportunities for independent sources of education, and the provision of competition by private colleges. In brief, the FDP has come closer in recent years to CDU/CSU objectives. The Greens combat the pressures of grades, competition, and general stress at school. They are of the opinion that current school and university education promote conformist citizens. They instead advocate equivalence between all schools (particularly between alternative and state schools), unified and integrated schooling up to the tenth class, and education in social and democratic behaviour and ecological awareness. The objective of surmounting the division between school and free-time is not uninfluenced by utopian views of education.

The Churches and Education

The Basic Law retains the 1919 Weimar constitution's separation between church and state, but close links do continue to exist between the churches and the education system. The churches have a special say in the organisation of religious teaching, which – in accordance with art. 7, para. 3 of the Basic Law – is a regular subject at general schools (except for a few non-denominational schools), and in appointments to theology faculties at universities and colleges. Religion is taught at the great majority of schools in accordance with the basic principles of the churches, which take responsibility for seeing that content and presentation accord with their dispensations. In order to guarantee such uniformity, the churches are allowed to inspect religious teaching, but their powers vary between Laender. Church study centres, offices of religious education, and commissions develop curricula and provide further training for teachers. The churches also provide backing for private schools (see section 13), colleges, and polytechnics where theologians, teachers of religion, tutors, and social workers receive training. The church academies play an important part in public discussion and adult education. Church synods repeatedly express views on educational issues. Relations between church and state are partly regulated by concordats (with the Catholic church) and partly by treaties (with the Protestant churches). In the sixties, discussions with the churches led to Laender where denominationally structured *Grundschulen* and *Hauptschulen* still existed establishing the legal preconditions for their transformation into mixed-denomination schools (community schools) as had long been the rule elsewhere. Denominational teacher training for state schools was also abandoned.

Associations, Trade Unions, Media

There also exists a broad spectrum of non-parliamentary social forces, which make an intensive contribution to discussion of educational policy. Teachers' associations thus play an active part in the shaping of public opinion about educational policy, and also provide further training for their members. The large majority of teachers are organised in one of the three large associations: the Education and Science Union (Gewerkschaft Erziehung und Wissenschaft with around 189,000 members) and its branches in the Laender, the German Teachers' Association (Deutscher Lehrerverband with some 114,000 members), and the Education and Training Association (Verband Bildung und Erziehung with over 100,000 members). Representing teachers from all kinds of schools, they produce a large number of publications, organise congresses and meetings, and thereby exert an impact on public opinion. The bi-annual congresses of the German Society for Education constitute an important forum for encounters between scholars and members of the public interested in education. The German Society for the Administration of Education has since 1979 brought together administrative specialists and scholars, and its meetings and publications enable experts to exchange their experiences. The Society for the Promotion of Educational Research (founded in 1950) works together with the German Institute for International Educational Research on intensification of communication between teachers, policy-makers, and researchers. The Society also exerts an influence beyond the confines of academia through its "Discussions on Educational Policy". The main organisation in the sphere of higher education is the German University Association grouping teachers at that level. The Federation for Freedom of Scholarship has been in existence since 1971, working on behalf of qualitative improvements in the education system – stressing compatibility of achievement rather than institutional uniformity.

The Federation has thus urged that universities should once again be allowed to differentiate, offering a diversity of levels. Only through the re-establishment of pluralism and competition between educational institutions – believes the Federation – can the quality of our system be improved.

Employers' associations and trade unions express their views on educational problems in policy declarations. The German Trade Union Federation (DGB) thus calls for legal establishment of a compulsory tenth year of general schooling in all the Laender, and for introduction of the all-day integrated comprehensive. The Congress of Industry and Trade has also often expressed its views on policies affecting vocational training. Co-operation between industry, schools (particularly vocational schools), and universities occurs on many levels, and includes the development of curricula and courses of study, and assistance for research programmes. The wide range of social forces influencing education cannot be adequately covered here. Space permits only mention of the media – television, radio, and press – and of the activities of pupil and student groupings.

3. Advisory Bodies on Educational Policy

The fact that decisions in educational policy are reached on the basis of consultations with scholars, representatives of public life, and other experts is not a recent development. Mention need only be made of the Prussian school conferences of 1849, 1874, 1890, and 1900, and the 1920 Reich school conference. The appointment of special advisory bodies on educational policy was, however, new for Germany. A distinction must be made here between national consultative institutions and advisory bodies for the individual Laender. In the spheres of schooling, teacher training, and adult education, there were two experiments in comprehensive national consultation between 1953 and 1975: the German Committee on Education and Training (1953-1965), and the German Education Council (1965-1975). Both bodies terminated operations after the federal or Laender authorities made apparent that their task was viewed as having been completed. No successor institution in this sphere has existed since 1975. The situation is different for universities, libraries, and research institutes. The Science Council established in 1957 has exerted great influence on university policy over the past three decades with its many recommendations, declarations, and assessments, and is still at work.

At the start of the fifties, the diversity of developments in the German school system led to sharp criticism of educational federalism, and there was public demand for at least a "Federal Advisory Board" or even a "Federal Ministry of Education". The Federal Ministry of the Interior (the Federal Ministry of Education and Science has only been in existence since 1969) then reached agreement with the Conference of Ministers of Education on establishment of the **German Committee for Education and Training** (Deutscher Ausschuß für das Erziehungs- und Planungswesen). This had the task of observing the development of education and training, and of promoting this through the provision of advice and recommendations. It was not a planning body but existed – independent of any influence by the authorities – in the political area between the federal and Laender authorities. The Committee consisted of some 20 persons, around half of them educationists and the rest well-known scholars and experts from industry. While in existence (up to 1965), the German Committee produced 29 recommendations and evaluations amounting to a total of over 1,000 pages. Particular interest was aroused by the outline plan for reorganisation and standardisation of the general school system (1959), the recommendations for expansion of *Hauptschulen* (1964), and the report on vocational training and schooling (1964). The composition of the Committee reflected the diversity of views on intellectual and cultural policy prevalent in discussions on education in the Federal Republic. The lack of organisational and institutional backing turned out to be a disadvantage. There was, for instance, no on-going co-operation with the Conference of Ministers of Education, the Laender ministries, and with federal ministries. Even though the German Committee did not succeed in implementing the comprehensive educational reforms it advocated, its reports and recommendations did nevertheless provide important impulses towards such aspects of reform as the upper level at *Gymnasium* (1960), transfer from one kind of school to another (1961), and the experimental introduction of orientation levels in several Laender.

At the start of the sixties it became apparent that the German Committee viewed its task as having been completed, and a debate on restructuring consultation on educational policy started, extending over several years. In 1961 the then SPD chairman in Bavaria, Waldemar von Knoeringen, proposed conclusion of a state agreement on a "Cultural Council", intended to coordinate policy. The Baden-Württemberg Minister of Education, Dr. Storz (CDU), countered by advocating establishment of an Education Council modelled on the Science Council. That was the direction taken by further discussions among the Conference of Ministers of Education, which in October 1964 recommended that the Laender prime ministers should conclude an administrative agreement between the federal and Laender authorities. That agreement on the setting up of a **German Education Council** (Deutscher Bildungsrat) for five years was agreed on 15. 7. 1965, assuring close co-operation with the Science Council. The German Education Council consisted of an education commission and a government commission. The latter was composed of the ministers or senators responsible for education in the eleven Laender, four state secretaries from the federal government, and the three chief executives from the leading local authority organisations representing cities, rural districts, and smaller communities. The education commission consisted of eighteen noted scholars with a variety of specialisations, and of leading figures in public life. Its tasks included drawing up plans for meeting educational requirements and developments in accordance with the demands of cultural, economic, and social life. It also had to put forward suggestions on educational structures, calculate financial needs, and make recommendations on long-term planning in the various levels ranging from pre-schooling to adult education.

In order to ensure that – unlike in the German Committee – sufficient attention was devoted to the political and practical possibilities of implementation of these recommendations and proposals, the agreement laid down that the education commission's plans, suggestions, etc., could only be presented to the federal and Laender authorities after consultation with the government commission. The same objective was served by the involvement of representatives of educational administrations on the education commission's committees.

The most important individual recommendations made by the Council's education commission and some of over 60 reports are referred to in the bibliography. Numerous experts were involved in such assessments. These publications document the far-reaching nature of discussions about educational theory and policy, covering such themes as ability and learning, performance at school and its assessment, and the integration of special schools in the comprehensive concept.

The German Education Council's structure plan (1970) was its main contribution towards preparing the way for the Federal-Laender Commission for Educational Planning's 1973 comprehensive education plan. This structure plan attempted to adapt education in the Federal Republic to international developments. Its proposals extended from pre-schooling to further education, and also covered vocational schooling, teacher training, and the administration and financing of education. Suggestions for reform included the introduction of an orientation level (between the primary level and secondary level I). Plans for secondary level I included replacement of the unconnected parallel existence of *Hauptschulen*, *Realschulen*, and *Gymnasien* by various forms of interlinking (school centres and co-operative systems), and trying out comprehensive schools in an experimental programme. In 1975 the education commission even advocated testing out comprehensives covering large catchment areas on a regular basis. The agreement providing for the German Education Council was extended for five years in 1970, but support for the comprehensive option almost inevitably aroused opposition to the Council's work on the part of opponents of such schools. Increasing polarisation over educational policy between the SPD/FDP on the one hand and the CDU/CSU on the other exerted a persistent influence from the early seventies. Differing assessments of the Education Council's work thus resulted in failure to reach agreement on extension of its existence beyond 1975. Before its dissolution the Council's education commission published the "'75 Report" (3.7.1975), which followed the theoretical and policy principles put forward in the 1970 structure plan. Contemporary developments in education, research, and policy were subjected to critical survey. The commission's last report thus attempted to provide an analysis of the state of education in the first half of the seventies. An advisory body's opportunities and limitations were once again clearly demonstrated. If one looks back today at the long series of Education Council reports and recommendations, it becomes obvious how quickly developments in educational policy overtook the positions represented there. And yet a perceptible lack remains, repeatedly provoking the question of whether some permanent advisory body is not required after all – particularly with regard to schools and despite some problematic experiences. The example of the Science Council shows that such an institution can be successful and fruitful over the longer-term.

The **Science Council** (Wissenschaftsrat) was set up on the basis of an agreement (5. 9. 1957) between the federal and Laender authorities. This was initially for three years and was renewed several times, later for periods of five years. In 1985 a further extension was agreed, covering up to 1990. It seems certain that the Science Council will be able to continue its work after 1990.

The Council has the task of drawing up an overall plan for promotion of the sciences, basing its work on individual plans put forward by the federal and Laender authorities within their spheres of competence. It has to coordinate these individual plans, designating emphases and degrees of urgency. The Council is obliged to produce an annual programme indicating priorities, and to provide recommendations on utilisation of the funds available in the federal and Laender budgets for the advancement of science. Since 1970 the expansion and development of universities (inclusive of medical clinics) have been the joint responsibility of the federal and Laender authorities – as provided for in article 91a of the Basic Law, amended in the law relating to assistance for construction of universities (see section 2.6). The Science Council issues recommendations on middle-term outline planning by April 15 every year.

The Science Council consists of 39 members – scientists, leading figures in public life, or people whose job is closely associated with the promotion of science. The 22 members of the science commission are appointed by the federal president: 16 on the joint recommendation of the German Research Association, the Max Planck Society, and the West German Rectors' Conference – and 6 on the joint recommendation of the federal and Laender governments. The 17 members of the administrative commission are also delegated by the federal and Laender governments (six by the federal government, and one each by the Laender governments). Apart from the already mentioned annual recommendations to the federal government on utilisation of the federal funds available for universities, mention should also be made of the following recommendations and publications produced by the Science Council:

- Recommendations on expansion of scientific facilities (1960)
- Suggestions on the organisation of new universities (1962)
- Recommendations on re-organisation of the teaching staff at universities (1965)
- Recommendations on re-organisation of courses of study at universities (1966)
- Recommendations on the structure and expansion of university education after 1970 (Three volumes 1970).

During the past decade the Science Council has produced an abundance of detailed positions on, for instance, assistance for the particularly gifted and for empirical social research, the establishment and maintenance of additional spheres of special research, the expansion of individual polytechnics, comprehensive colleges, and universities, co-operation between universities and industry, and support for young scholars.

Despite a number of wrong forecasts in its early stages, the Science Council has gained public recognition for the fruitfulness of its activities in the course of over 30 years of existence. Its structure and working methods have stood the test of the mounting demands made of scholarly advisers on educational policy. In brief, the Council has become an established institution, bringing together scholars and politicians in extensive co-operation. Its most enduring successes have included the 1960 recommendations on expansion of scientific facilities – known as the "Blue Recommendations" after the colour of the binding. There has, however, also been criticism. Rolf Berger (see bibliography) maintained that the Council's way of working was largely unscientific. He claimed that the procedures for making appointments to the Council and its operations were impenetrable, inaccessible to the public, and beyond effective control. The combination of provision of advice and decision-making was said to result in many cases in a non-legitimated transfer of political responsibility from the executive to the Council. Despite such attacks, public tribute has several times been paid to the Council's achievements. Karl Carstens, former Federal President, spoke as follows in a ceremony – at the Schloß Bellevue in Berlin on 27. 1. 1983 – marking the Council's 25th anniversary: "The Science Council has now been in existence for 25 years. Those were eventful years, particularly for the universities . . . The Council accompanied those developments, providing advice and making suggestions in accordance with its mandate. I should like to proclaim my respect for that work . . . Many of its ideas were taken over by the ministers of education and the universities. They led to good results." Carstens was not uncritical at times: "We must also observe that another aspect of these reforms did not stand the test. It cannot be disputed that the Council's scientific and administrative commissions also put forward recommendations which led to what the light of experience shows to have been wrong developments."

Finally, mention must be made of the "Discussion Group on Educational Policy" (Gesprächskreis Bildungsplanung) set up by the Federal Ministry of Education and Science. The name indicates that this was not an institution comparable with the Science Council but rather a body serving limited functions. It was in existence from 1977 to 1987 when the then Minister of Education and Science, Dr. Dorothee Wilms (CDU) dissolved this grouping of fifteen experts, which had originally been established on the initiative of the federal parliament. In 1985 the group had, for instance, approved recommendations on the theme of "Natural science and technology as an aspect of education", drawing attention to weak points in the relationship between education and technology. The recommendations put forward approaches for the better implementation of scientific knowledge and new technologies in schools, colleges, and vocational and further education.

The SPD faction in the federal parliament recently appointed a commission of enquiry into "Education 2,000", intended to develop future-oriented perspectives leading towards consensus. Even before the commission started work, the CSU group in the Bavarian parliament expressed constitutional concern about such an objective infringing Laender educational autonomy.

Discussion about a possible successor to the Education Council has persisted up to the present day. In 1985 the then Federal Minister of Education and Science, Dr. Dorothee Wilms (CDU), spoke in favour of appointing an independent council of experts charged with expressing their views on such educational developments as the consequences of new technologies and changing values among the younger generation, and their impact on basic aspects of education and training. The idea was not, however, a new version of the former German Education Council. Support for establishment of a new educational advisory body also came from Hanna-Renate Laurien (CDU), then Berlin's senator for schools, Lower Saxony's minister of education, Georg-Berndt Oschatz (CDU), and North Rhine-Westphalia's minister of education, Hans Schwier (SPD).

State school councils exist in eight Laender – excluding Bremen, North Rhine-Westphalia, and Rhineland-Palatinate. Their task is to advise Laender ministers of education on fundamental measures and decisions, as, for instance, in the preparation of legislation. They usually represent various social groups interested in schooling: teachers, pupils, parents, universities, industry and trade unions, churches, leading local associations, and youth groups. In North Rhine-Westphalia, the minister of education is legally obliged, from case to case, to involve relevant organisations in school affairs of general and crucial significance. A special group of experts, the "Child's Advocate" commission, has existed in Rhineland-Palatinate since 1974, putting forward recommendations on current educational and similar issues, and advising the ministry of education.

4. Educational Research

The objective of educational research is to analyse relevant national and international developments, thereby assisting policy-making. The degree to which educational research really can make such a contribution remains, however, a moot point. On the other hand, some highly important decisions within educational policy – such as the introduction of polytechnics or of comprehensive schools – went ahead irrespective of the virtual absence of extensive research. Decision-making in fact largely follows political trends within the force-field of organised parties and interest groups. During the period of educational reforms up to the mid-seventies, research enjoyed a boom. Public opinion took note of research and its expansion was promoted. In the meantime "the limits of the attainable" in educational research have long become apparent. It would nevertheless be wrong to speak of stagnation in this realm even though the number of big projects has certainly declined and staffing levels have long been at a standstill. The multitude of annual publications documents undiminished intensity and constant endeavours towards doing justice to research. Approaches to research and thematic emphases within educational and cultural policy fluctuate rapidly, however, in our politically agitated age. The main foci of activities at research institutes thus by no means develop in protected zones remote from politics.

Educational research has long been pursued at universities and colleges of education as pedagogic, psychological, or sociological research. Research centres for comparative educational studies have, for instance, existed for some two decades at the universities of Bochum and Marburg, specialising in Eastern Europe (Prof. Dr. Oskar Anweiler) and Western Europe (Prof. Dr. Leonhard Froese). Since such research – often assisted by the German Research Association, particularly in specialised research spheres – is usually conducted in close conjunction with involvement in teaching, and research capacity is limited, several national and regional institutes have been set up in recent decades. These are particularly concerned with comparative international aspects of the economics and sociology of education, school and university legislation, and educational administration.

National Research Institutes

The German Institute for International Educational Research (Deutsches Institut für Internationale Pädagogische Forschung) at Frankfurt am Main has been in existence since 1952. It is the oldest such institution in the Federal Republic, and the collaboration of educationists, psychologists, legal experts, economists, sociologist, and historians particularly paved the way for other developments. The emphasis from the very start has been on empirical research. The Institute is legally established as a public corporation, and it is subject to legal supervision by the Hesse Minister of Science and Art. The foundation's tasks and organisational structure are laid down in its statutes (as revised on 24. 2. 1987). The Institute was established by the Hesse parliament on 16. 11. 1950 – on the initiative of the then Hesse Minister of Education and later constitutional court judge, Prof. Dr jur. Erwin Stein, who is still president of the foundation council and chairman of the executive board. From 1950 to 1964 the foundation, then still known as the "College for International Educational Research", only received backing from Hesse, but from 1964 to 1977 it was assisted by all eleven Laender in accordance with the Königstein Agreement. Since 1977 the Institute has been equally financed by the federal and Hesse authorities, following the outline agreement of assistance for research concluded between Bonn and the Laender. Research is concerned with the legal, administrative, economic, social, psychological, and historical aspects of education and training viewed in interdisciplinary terms. International and intercultural comparative studies are pursued as a fruitful procedure – as is demonstrated in a large number of publications on educational developments in both Eastern and Western Europe, and in Third World countries. The Institute also plays a part in consultations on educational policy at the international level – in the European Community, the Council of Europe, the OECD, and UNESCO. Three all-embracing emphases dominate the current research programme:

- School and education at a time of social and cultural change
- Regulation problems in the education system
- Education in multi-cultural societies.

The German Institute's library is one of the largest Federal German libraries specialising in interdisciplinary educational research. Its stock of foreign journals and systematic documentation of data – particularly with regard to the states of Western and Eastern Europe – are especially valuable. The Institute has a staff of around 80 including 45 scholars.

When it became apparent during the preparation of educational reforms during the sixties that more research capacity was needed, the Max Planck Institute for Educational Research (Max-Planck-Institut für Bildungsforschung) was set up at West Berlin in 1963, headed by Prof. Dr. h.c. Hellmut Becker. Since his retirement in 1981 the Institute has been jointly directed. It is devoted to specialised and interdisciplinary research into developmental and educational processes, and investigation of their institutional structures and social functions. The Institute is organised in four spheres of research:

- Education, work, and social development
- Development and socialisation
- Psychology and human development
- School and teaching

The Institute worked closely together with the German Education Council between 1965 and 1975 and provided backing for the latter's work in a large number of investigations and reports. In 1980 an Institute project group brought out a comprehensive two-volume report on "Education in the Federal Republic of Germany. Data and Analyses" (see bibliography). An updated version of that report is under way. There are three main emphases in the research sphere of "school and teaching":

- Development of the education system in conjunction with general social conditions
- Organisation and administration of teaching and learning at school
- Investigation of individual learning processes.

Projects cover the current development of primary schools, *Hauptschulen*, and comprehensive schools, the professionalisation of teachers, achievement problems at school, and organisation of inspection of schools. The Max Planck Institute for Educational Research has a staff of 132 including around 50 full-time scholars and 40 guest scholars.

The Federal Institute for Research into Vocational Training (Bundesinstitut für Berufsbildungsforschung), was established at Berlin in 1970 on the basis of the 1969 law regulating such activities. There is also a branch of the Institute in Bonn. After the 1976 law covering assistance for training-places came into effect, this institute was restructured as the "Federal Institute for Vocational Training". Its present legal basis is the law for assistance of vocational training through planning and research (23. 12. 1981) as modified on 4. 12. 1986. The Institute is thus a completely federal organisation subject to legal supervision by the Federal Ministry of Education and Science. It is not a purely research set-up, but is also charged with advisory functions and the provision of service facilities. The main committee, grouping representatives of employers, trade unions, federal authorities, and the Laender, determines its activities. A secretary-general directs the Institute, whose task – within the guidelines established by the federal government's educational policy – is to investigate the impact of the world of work on vocational training and to examine the structures and content of the different levels of training. The objective is always to improve the implementation of vocational training. Such research is concerned with the nature of vocational training, and its adaptation to technical, economic, and social developments. Above all, the Institute advises the federal government on basic issues in vocational training, watches over pilot projects, supports the planning, establishment, and further development of vocational training centres, and assists training technology. The Institute is now contributing towards preparation of training regulations and publishing an American register of training facilities. The law providing for regulation of correspondence courses (see section 17.2) lays down that such courses providing vocational training should be assessed by the Institute before being introduced. This Institute now has a staff of around 370.

Regional Institutes of Educational Research

In the sixties and seventies, a variety of federal and Laender institutes were established at Bad Kreuznach, West Berlin, Kiel, Munich, Soest, Stuttgart, and Wiesbaden so as to intensify educational research in the Laender. These institutes are mainly concerned with the following spheres:

1. Basic research on learning and ability.
2. Evaluatory work on pilot projects, particularly comprehensives.
3. Curriculum research and development.
4. Research into socialisation.
5. Surveys in conjunction with educational planning, i. e., changes in the demand for education, cost structures and changes in association with structural changes, and analyses of international developments.

This mostly involves school-related research. The West Berlin Educational Centre thus has the task of putting the results of educational research and practice into effect at Berlin schools, thereby providing for their further development. The Bad Kreuznach Regional Educational Centre develops models of co-operation between various types of school and also between schools and partners from outside the system. The Centre mediates between school practice and educational planning, between teachers and scholars, and between schools, parents, and relevant political and economic institutions.

North Rhine-Westphalia's Soest Institute for Schooling and Secondary Education is charged with backing schools' activities and providing specialist assistance for the secondary sphere. All of North Rhine-Westphalia's guidelines and curricula are developed here. Concepts within centralised advanced training for teachers are devised and tested before being implemented regionally. That also includes specialist assistance for adult education through training for instructors in this sphere. This institute with its additional responsibility for curriculum development and advanced teacher training therefore enjoys a special status among the state educational institutes since it serves not just the schools, but also adult education. Its extensive range of operations and location in the most densely populated of the Laender also explains its size and a permanent staff of almost 200.

The state institutes amalgamated in Munich's Educational Research Centre support the advancement of Bavaria's education system through practice-oriented research and development. The Centre comprises the institutes of school pedagogics and educational research, university research and planning, and early education and family research. The Bavarian state institute for educational research and planning set up in 1966 was closed down in 1983. That is the only such institute to have suffered this fate to date – after the death of its meritorious director, Dr. Alfons Otto Schorb. The closure came as a complete surprise to the public, especially as the establishment's achievements were widely recognised – even at the state level.

The educational and vocational research financially assisted by the Federal Ministry of Education and Science mainly serves fulfilment of the ministry's tasks. Research is thus determined by current and middle-term federal educational policy

- improving knowledge about the education system and its relations with other aspects of life and politics
- making available the quantitative and qualitative basis for decision-making
- investigating the impact of measures taken, and
- creating the foundation for informing the specialist public.

The main emphases in research are the new technologies of information and communication, media education, artistic and cultural education, and the development of new structures for qualification. Further education and co-ordination of education and employment are also of great importance. Greater assistance is being given to investigations of training for women and the highly talented. The federal and Laender authorities jointly promote the evaluation of educational pilot projects by way of the Federal-Laender Commission for Educational Planning and the Advancement of Research.

New Laender research emphases include:
- The pedagogics of teaching foreigners
- Measurement of achievement (aptitude testing)
- Media research.

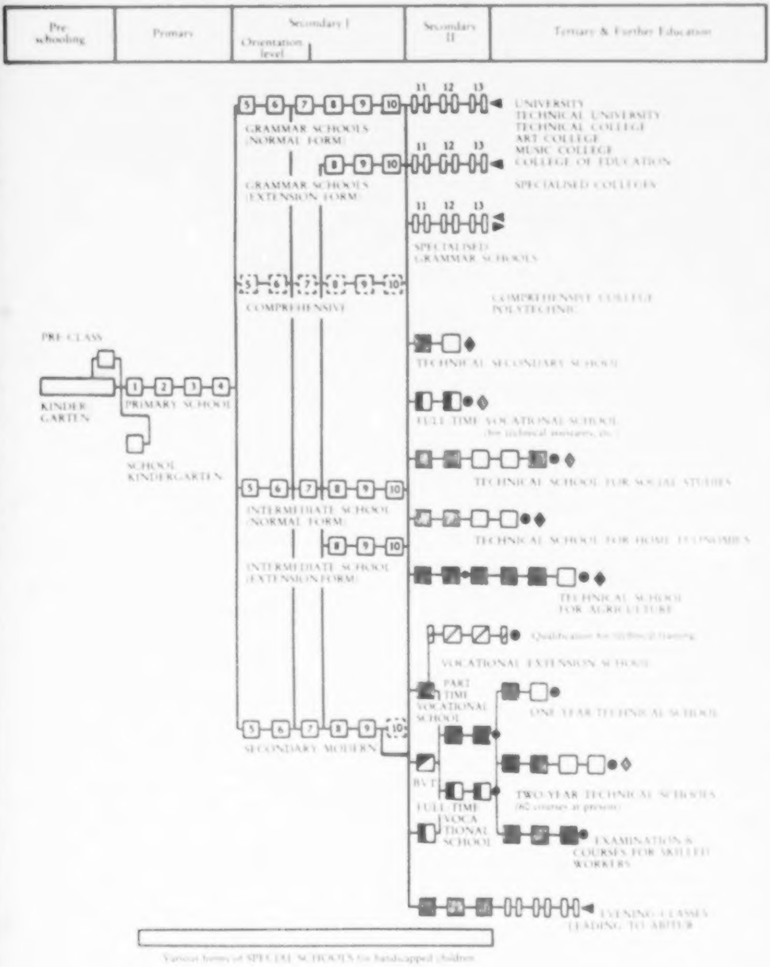
Particular attention is devoted to the question of how qualifications gained during teacher training can be applied in other forms of employment at a time when many teachers do not find a job.

Educational research has also been considerably assisted in recent decades by the funds made available by foundations – sometimes in conjunction with special programmes. Initiatives of the Volkswagen foundation led to the establishment of such celebrated institutions as Kiel's institute for the pedagogics of the natural sciences, Tübingen's German institute for correspondence courses, and the Hanover-based university information system. Support from the Volkswagen foundation was also involved in the 1973 start on development of an institute for the didactics of mathematics at Bielefeld University. Other foundations – such as the Fritz Thyssen foundation, the Werner Reimers foundation, and the Donors' Association for German Science – have also been involved in educational research.

Finally, two institutions of educational research principally supported by the churches: the Protestant Comenius Institute at Münster, and the non-denominational German Institute for Education and Knowledge at Paderborn. The Catholic German Institute for Scientific Pedagogics at Münster was closed in 1980 because of differences between the German bishops and the scholars. Even these for the most part small institutes (in terms of staffing) have with the part-time involvement of noted experts made important contributions to recent educational research through publications and convening gatherings of specialists.

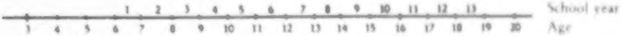
We have attempted here to introduce the most important institutions involved in educational research, outlining their spheres of activity. Readers may have got the impression that research on a huge scale and with unusually high levels of staffing has developed here within just a few decades, based on an unshaken belief in scholarship. That would be very wrong. In terms of the area covered by research, the financial and staff resources devoted to educational research in the Federal Republic of Germany should rather be seen as too limited. The total sum made available annually from public funds for educational research as narrowly defined is around 70 million DM – which amounts to the annual budget of a medium-sized hospital.

Structure of the Educational System in the Federal Republic of Germany (1984)


Pre schooling
Primary
Secondary I
Orientation level
Secondary II
Tertiary & Further Education
11 12 13
UNIVERSITY
TECHNICAL UNIVERSITY
TECHNICAL COLLEGE
ART COLLEGE
MUSIC COLLEGE
COLLEGE OF EDUCATION
SPECIALISED COLLEGES
GRAMMAR SCHOOLS (NORMAL FORM)
GRAMMAR SCHOOLS (EXTENSION FORM)
SPECIALISED GRAMMAR SCHOOLS
COMPREHENSIVE
COMPREHENSIVE COLLEGE POLYTECHNIC
PRE-CLASS
KINDERGARTEN
PRIMARY SCHOOL
SCHOOL KINDERGARTEN
TECHNICAL SECONDARY SCHOOL
FULL TIME VOCATIONAL SCHOOL
(for technical assistants, etc.)
TECHNICAL SCHOOL FOR SOCIAL STUDIES
INTERMEDIATE SCHOOL (NORMAL FORM)
TECHNICAL SCHOOL FOR HOME ECONOMICS
INTERMEDIATE SCHOOL (EXTENSION FORM)
TECHNICAL SCHOOL FOR AGRICULTURE
VOCATIONAL EXTENSION SCHOOL
PART TIME VOCATIONAL SCHOOL
ONE YEAR TECHNICAL SCHOOL
SECONDARY MODERN
BVT
FULL TIME VOCATIONAL SCHOOL
TWO-YEAR TECHNICAL SCHOOLS
(60 courses at present)
EXAMINATION & COURSES FOR SKILLED WORKERS
EVENING CLASSES LEADING TO ABITUR
Various forms of SPECIAL SCHOOLS for handicapped children

Key

□	Full-time school. Year courses
▯	Full-time school. Half-year courses
▨	Part-time school
■	Part-time school + vocational training
■	Practical vocational experience required for admission
◧	Practical instruction at school (vocational)
◪	Year of basic vocational training
◀	General university entrance qualification
▶	Subject-restricted university entrance qualification
◆	Polytechnic entrance qualification
◆	Polytechnic entrance qualification after additional classes and examination
●	Final examination
•	In some Laender an established form of school alongside intermediate school, secondary modern, and grammar school. Elsewhere still at the experimental stage.



Source: Kultusministerkonferenz Handbook 1984/85

5. Outline of the Structure of the Education System

Compulsory schooling exists for all children from the age of six to eighteen. Full-time education lasts for nine years – ten in West Berlin and North Rhine-Westphalia – and then children who do not continue with such schooling have three years of part-time attendance (compulsory vocational schooling).

Elementary sphere

There is no compulsory attendance at pre-school level. Kindergartens for three to six year-olds are not directly linked with the education system. Attendance is voluntary.

Primary level

The *Grundschule* (primary school) is the basic level within the education system, attended by all children. This lasts for four years – six in West Berlin. Children who have reached school age but are not yet ready to attend are provided for in school kindergartens (pre-classes) so far as possible.

Secondary level I (Lower Level)

Common primary schooling provides the foundation upon which the differentiated secondary education system is based. Secondary level I comprises the orientation level, the *Hauptschule* (secondary modern), the *Realschule* (intermediate school), the *Gymnasium* (grammar school) and the *Gesamtschule* (comprehensive school). Co-ordinated outline curricula permit a high degree of transferability between the different types of school. None of these schools entails a "dead-end" but instead offers possibilities of transfer to other courses.

Orientation level: Classes 5 and 6 usually constitute the orientation (mixed ability) level, serving the task of helping all pupils find their way within the possibilities offered by different types of school, keeping options open until the end of the sixth class. This orientation level can be established either within the existing school organisation or as a self-sufficient level regardless of the type of school involved.

Hauptschule (Secondary modern): The *Hauptschule* usually comprises five age-levels (classes 5 to 9) – but six in North Rhine-Westphalia (classes 5 to 10), three in Laender with autonomous orientation/mixed ability levels (Bremen, Lower Saxony, and parts of Hesse: classes 7 to 9), and four in West Berlin (classes 7 to 10). This form of school is obligatory for all pupils who do not transfer after the primary or orientation level to *Realschule*, *Gymnasium*, or *Gesamtschule*. In some Laender qualified children can move on to an extension *Gymnasium* after completion of the sixth, seventh, or eighth class. A tenth voluntary year of schooling is experimentally available at a number of *Hauptschulen*.

Realschule (Intermediate school): The normal form of *Realschule* takes six or four years, comprising classes 5 or 7 to 10. The four-year form is mainly to be found in West Berlin, Bremen, Hamburg, Lower Saxony, and Bavaria. In some Laender there are also three-class continuation forms for *Hauptschule* pupils, starting with the 8th school year. The *Realschule* leads to an intermediate qualification which is the precondition for a variety of vocational courses and for attending the *Fachoberschule* (technical secondary school). Talented children who complete the *Realschule* course can transfer to the upper level at *Gymnasium*.

Gymnasium (Grammar School): The *Gymnasium* is the only kind of school that includes both secondary level I and II. Attendance at a *Gymnasium* usually lasts nine or seven years (classes 5, 7, or 8 to 13). Completion of the 10th school-year is equivalent to completion of *Realschule*.

Gesamtschule (comprehensive school): Integrated or co-operative comprehensives usually comprise classes 5 or 7 to 10. Comprehensives for the most part provide joint instruction for secondary level I pupils integrated and differentiated in a variety of ways, or integrate the three traditional forms of school (*Hauptschule*, *Realschule*, and *Gymnasium*). In Bremen, Hamburg, Hesse, North Rhine-Westphalia, and the Saarland, comprehensives are an established equivalent to the other schools, but in the remaining Laender they are viewed as an option or an experiment. Comprehensives lead to the same qualifications as the other schools in secondary level I.

Secondary Level II (Upper Level)

Secondary level II comprises general and vocational schools between secondary level I and polytechnics, colleges, and universities. This involves classes 10 to 12, 11 and 12, or 11 to 13.

After completion of *Hauptschule, Realschule*, or the corresponding year-level at a comprehensive or *Gymnasium*, most pupils start vocational training or get a job.

Vocational training can occur in two ways. Either through the dual system of co-operation between firm and *Berufsschule* (part-time vocational school), or through *Berufsfachschule* (full-time vocational school) which mediate knowledge about a broader range of possibilities (i. e. commercial or trade schools) before starting work. Both ways can lead on to vocational extension school, technical secondary school, or sixth-form college, which provide the qualification for admission to polytechnics or other institutions of higher education.

Vocational schooling. Vocational schooling is highly differentiated and builds on from secondary level I schooling in accordance with the qualification required. This part of the system includes part- and full-time vocational schools (the former compulsory), vocational extension schools, technical secondary schools, technical schools, and special forms which do not exist in all the Laender: vocational gymnasia, vocational secondary schools, vocational sixth-form colleges, and vocational academies.

Upper level at Gymnasium. This comprises classes 11 to 13, concluding with the Abitur examination.

Alternative form of university admission (Zweiter Bildungsweg). This enables young people and adults who did not complete courses at *Realschule* or gain the university entrance qualification at general or vocational schools to make good that lack. The institutions providing this second chance include vocational extension schools, evening versions of *Realschule* and *Gymnasium*, and sixth-form colleges.

Special schools. These exist at all levels of the education system for physically or mentally handicapped children who cannot participate in general lessons.

Tertiary Level

The university system is structured as follows:

1. Scholarly institutions such as universities, technical colleges/universities, comprehensive colleges, specialised colleges (such as medical, sport, theological, and church colleges), and colleges of education.
2. Colleges of Art and Music
3. Polytechnics

As far as admission is concerned, a distinction must be made between

- Polytechnics where the necessary qualification is gained at technical secondary schools after 12 years of schooling
- and universities and other scholarly institutes where the Abitur is required for admission.

Comprehensive universities offer courses at both the polytechnic and the university level.

Quarternary Level

Institutions of adult education and further training, particularly evening classes and media-backed correspondence courses.

6. General Aspects of the School System

School year: In the 1964 Hamburg Agreement on standardisation of the school system the Laender prime ministers laid down that the school year throughout the Federal Republic should begin on August 1. In actual fact, the start of the school year varies, since the summer holidays are staggered from Land to Land, ending between the beginning of August and the beginning of September.

Holidays: The total length of holidays was also fixed in the 1964 Hamburg Agreement, amounting to 75 working days. The start and finish of the summer holidays are staggered so as to avoid excessive road and rail traffic. The Conference of Ministers of Education determines dates for summer holidays well in advance. These holidays, which usually last for six to seven weeks, start at the end of June in some Laender, and end in mid-September in the areas that began last. The other longer holiday periods are around Christmas and Easter. In some Laender there are Whitsun and autumn holidays.

Free schooling and learning aids; travel subsidies: Attendance at state schools is free in all of the Laender. Free use of learning aids has been implemented in almost all the Laender but there are differences in the range of materials involved. Most of the Laender provide textbooks without charge. A limited degree of parental participation in the procurement of teaching aids, depending on income and number of children, is planned. Transport costs to centrally-situated rural schools at all levels are generally paid for out of public funds so as to balance out educational opportunities between town and country areas.

Educational grants: A federal law (Bundesausbildungsgesetz) regulates assistance from the 10th class onwards for pupils in need who no longer live at home because the requisite schooling does not exist in their locality. Special regulations apply to those working towards extra-school acquisition of the university entrance qualification.

Age-levels (Classes): Apart from levels 11-13 at gymnasium, teaching takes place in classes, which are numbered upwards from the first year at primary school. These classes are organised in accordance with age. Thus the term "class" refers to both the individual school class, and also to the entire year-level. In some subjects (languages, mathematics) teaching takes place in streamed courses from levels 5 or 7. More information about the organisation of teaching at the upper level of gymnasium is presented in section 10.1.

Assessment of achievement: Pupils' achievements in the subjects taught are expressed in grades. A points system is used at the upper level of *Gymnasium*. The Conference of Ministers of Education in 1968 defined grades as follows:
Very good (1). This grade is to be awarded if the performance is well above the required standard.

Good (2). Awarded for a performance that fully meets the required standard.
Satisfactory (3). Awarded for a performance that on the whole meets the required standard.

Adequate (4). Awarded for a performance which, though showing deficiencies, on the whole still meets the required standard.
Poor (5). This grade is to be awarded for a performance that does not meet the required standard but indicates that the necessary basic knowledge exists and that the deficiencies could be removed in a foreseeable period.

Unsatisfactory (6). To be awarded for a performance that does not meet the required standard and indicates that even the basic knowledge is so fragmentary that the deficiencies could not be removed within a foreseeable period.

These grades are the outcome of subjective evaluations where the class average also plays a part, so it sometimes happens that similar performances are differently assessed. An attempt is being made to ensure greater objectivity through utilisation of standardised work and school tests. Transfer from one age-level (class) to the next is termed "promotion". The Conference of Ministers of Education has agreed on the principles regulating promotion. There are no examinations before promotion to the next class, but results in written work during the school year exert considerable influence on evaluation of achievement. In some Laender pupils who do not go up to the next class have an opportunity of re-examination after the summer holidays. If it becomes apparent that a pupil has caught up again with the class's level of achievement, he does not need to repeat that year. In general a pupil at *Realschule* or *Gymnasium* is not permitted to fail to achieve promotion more than twice. If that happens, he must transfer to another kind of school – i. e. from *Gymnasium* to *Realschule*, or from *Realschule* to *Hauptschule*. New forms of individualising the tempo of learning are also being implemented at comprehensives. During the first years at primary school, reports on learning behaviour and standard of achievement have replaced the previous grades. The intention is that children starting school should be spared pressure towards achievement.

Final examinations: These are generally conducted by the school itself – to the extent that such final assessments occur at all in general or vocational schooling. The nature of written work is usually laid down by the schools inspectorate. Both young people and adults can acquire the qualification for completion of all levels of schooling and vocational training by way of external examinations. Decisions about promotions and examinations can be contested in the administrative courts.

Educational qualifications: Greater detail is presented in the descriptions of individual forms of school and the university system. This is just a brief outline:

1. *Hauptschule* leaving certificate after 9 school years. Special achievements are specifically recognised in some Laender.
2. *Realschule* leaving certificate after the 10th class. A comparable qualification can be gained at *Gymnasium*, *Hauptschule* (after the 10th class), and in vocational schools. It admits to *Fachoberschule* (technical secondary school).
3. *Fachoberschule* leaving certificate at a *Fachoberschule* or comparable institution after the 12th class. It admits to *Fachhochschule* (polytechnic).
4. The Abitur after the 13th class, allowing entry to university studies.
5. Master's degree, diploma, or first degree examination after university studies of usually at least 8 semesters.

Teaching Time: Teaching normally takes place in the mornings from Monday to Friday. During the past two decades the school system has increasingly adapted to the five-day week usual in industry and administration. In schools operating six days a week there are two free Saturdays a month.

All-day schools: The number of all-day schools where pupils are cared for and provided with educational activities once teaching is over is small but constantly increasing. In 1977 there were around 600 all-day state schools (including 380 special schools, 82 comprehensives, and 33 *Gymnasien*), and 210 such private schools (112 special schools and 56 *Gymnasien*). In 1988 the number had increased to 800 state all-day schools (484 special schools, 44 primary schools, 33 *Hauptschulen*, 16 combined primary + *Hauptschulen*, 15 *Realschulen*, 75 *Gymnasien*, 118 comprehensives, and 17 other schools), and 534 such private schools (288 special schools and 105 *Gymnasien*).

Teaching hours: The number of hours prescribed for lessons per week depends on a pupil's age. Children starting school begin with about 20 lessons a week, and the total gradually increases to between 30 and 36. A lesson usually lasts 45 minutes. At many schools, two lessons are often amalgamated to form units lasting between 80 and 90 minutes. There are short breaks between lessons, and these add up to about 40 minutes in a morning of five lessons.

Obligatory teaching schedules: The obligatory number of hours taught is regulated by the teaching profession, and varies slightly between Laender. The Hesse guidelines serve as an example:

Teachers at	Weekly obligatory hours
Hauptschulen	28 or 27
Realschulen	27
Special schools	27
Vocational schools	26
Gymnasien	24

Some teachers only work part-time – at their own request or because of a lack of staffing vacancies. Hours are also reduced for teachers with special tasks and for older staff.

The teachers' associations criticise the fact that the obligatory number of hours taught has only minimally declined in recent decades, whilst in other public service occupations weekly hours of work have gone down from 48 to 39 since 1957 – and will sink to 38.5 from 1 April 1990. The associations and the Education and Science Trade Union are pushing for similar reductions for teachers. The Conference of Ministers of Education thus decided (on 23/24. 6. 1988) that teachers should also benefit from such reductions. Relief will primarily be accorded to those teaching the most lessons. The hope is that the obligatory work-load will be adjusted from 28 to 27 hours a week.

7. Elementary Level
Pre-Schooling and Kindergarten

The elementary level includes all provision for children from their third birthday until they begin school. Pre-schooling has a long tradition in Germany as the land where the kindergarten originated, but was, however, never officially integrated in the state school system since it provides for the age-group before compulsory schooling starts. Nevertheless, during the reform phase the kindergarten was included within the "elementary sphere" in plans for reform of the educational system. Kindergartens have the task of complementing upbringing and training in the family. Today around 75% of three year-olds and over 80% of five year-olds attend a kindergarten, mainly because their mothers go out to work. State regulations now provide for mothers being away from work during a child's first year of life. The kindergarten is also intended to offer substitute brothers and sisters at a time when "only children" are very common. Problems arise in densely populated urban areas where there are many foreign children in these institutions, demanding that particular attention be paid to other (e. g., Moslem) religious beliefs. Many pilot projects are devoted to assisting German and foreign children at the elementary level.

Attendance at kindergarten is voluntary. Some 68% of kindergartens are dependent on private backing – mainly from the churches, and to a lesser extent from workers' welfare organisations, firms, and individuals. Around 30% of all kindergartens are supported by local authorities. Private kindergartens are also subject to state supervision, and receive financial support from the Laender and local authorities. Despite considerable subsidies from public funds (and from church taxes in the case of church kindergartens), the parents of children at kindergarten must make a financial contribution – varying in amount and sometimes graduated according to income. These charges, which are sometimes considerable, vary between Laender and sometimes even within a Land. The Youth Office pays for the children of low-income parents. Pre-schooling therefore differs from the general school and university system in not being free of charge.

During the sixties animated public debate about pre-school education accelerated the construction of kindergartens and renewed people's awareness of their significance. In 1960 only around 817,000 kindergarten places were available. The number had reached 1,160,000 by 1970, 1,394,000 by 1980, and 1,473,000 by 1986. At the start there were places for only a third of all three to six year-olds, but by 1977 76% were already accommodated, and in 1986 over 80% – with a decline in the birth-rate playing a part in this development. In 1986 137,500 people were employed in kindergartens including 77,000 nursery school teachers. Despite the increase in numbers of kindergartens, there is still a lack of places and trained staff in densely populated urban areas.

During the sixties and seventies a debate raged about the extent to which compensatory measures for children from socially and culturally deprived backgrounds could improve their educational opportunities when they entered primary school – and also about whether it was expedient to advance the start of compulsory education from six to five. At that time the federal and Laender authorities conducted a comprehensive programme of experiments and scholarly evaluations. This did not, however, lead to any clear-cut conclusions with regard to reorganisation of this sphere. The start of school attendance was not put forward by a year. Many pilot projects are concerned with shared schooling for handicapped and non-disadvantaged children, and many newly-developed learning materials and new educational methods have been tested. The emphasis is not just on mediation of knowledge. The child's emotional world is to be taken into account; social learning promoted by way, for instance, of involvement in sport and the arts; and imagination and pleasure in play stimulated. The kindergarten's task does not involve early practice in the subject-matter of primary school. Radio and television also devote attention to elementary schooling within children's programmes. The German version of "Sesame Street" had a particularly far-reaching impact. Such story programmes as the "Augsburger Puppenkiste" are also popular.

Pre-schooling attracted growing public attention in the sixties and seventies, but interest has dwindled in recent years. Nonetheless, that does not affect the high status kindergartens continue to enjoy. The qualitative improvement in staff training plays a considerable part. Nursery school teachers generally have to complete three years of training at technical schools (technical academies in Bavaria) providing courses in social pedagogics for which the precondition is completion of *Realschule* and considerable practical experience.

8. Primary Level

The primary sphere takes in primary schools, school kindergartens (pre-classes), and school admission levels.

8.1 *Grundschule* (Primary School)

The *Grundschule* is the foundation of the entire education system. It comprises classes 1 to 4, and is attended by all six- to ten-year-olds. In West Berlin the 5th and 6th classes (eleven- and twelve-year-olds) are also part of the primary system. A child is usually viewed as having reached the age of compulsory schooling if it reaches the age of six by the preceding 30th of June. Children who become six between that date and the end of the year can also be accepted at primary school if the head approves the parental application. All children are examined by the school doctor. If it becomes apparent that a child is not yet sufficiently mentally and physically developed for successful participation in primary school classes, entry can be delayed for a year. If there is a school kindergarten (pre-class) in the locality, attendance is recommended (see section 8.2). In rare cases the child is sent to a special school – as when linguistically disadvantaged youngsters attend a specially adapted form of primary school. Nevertheless, handicapped children are so far as possible integrated in ordinary primary schools, sometimes within experimental programmes.

The aim of the primary school is to provide all pupils with the foundations for further education at secondary schools. Such a school thus endeavours to promote a many-sided unfolding of the child's personality, to awaken interests and abilities such as imagination, initiative, self-reliance, and social co-operation, and to increase joy in learning. Individual character and differences in learning speeds, attitudes to work, and the child's everyday background are taken into account so far as possible. The teaching thus builds on a child's experiences, incorporates them in school learning, and mediates basic skills in reading, writing, and arithmetic. Children's creative powers and capacity for perception and expression are particularly promoted in arts subjects and sport. An example of a timetable is contained in appendix 18. The first class usually starts with 20 lessons a week, and gradually increases to between 25 and 30.

Particularly during the first two years at school, teaching is largely carried out by a single person, the class teacher. Being able to concentrate on one person rather than many different specialised teachers makes settling in at school easier for the pupils. The class teacher principle is intended to guarantee the unity of character-training and teaching, constant educational assistance, and the possibility of taking account of the specific needs of individual pupils. From class 3 onwards, pupils are increasingly taught by specialists and thus prepared for transition to the secondary sphere where such specialisation predominates.

In Bavaria, for example, German, mathematics, local history and geography, music and movement, and art are incorporated in a block of 17 hours of teaching a week during the first two years. Character training is given precedence over transmission of knowledge. The teacher does not teach specific subjects according to a timetable but rather changes between them in shorter units. As well as teaching involving the entire class there are also forms of individual, partner, and group work so as to do as much justice as possible to every pupil. The first graded reports come at the end of the second year.

All of the Laender endeavour to attain such individualisation of teaching. Attempts are made at providing additional assistance for children with considerable long-term problems in learning reading and writing. In North Rhine-Westphalia daily homework must not take longer than at most 30 minutes for the first two years. For the two next classes the limit is 60 minutes. Teaching is often enlivened by investigations in the locality – such as carrying out a survey at the post office or the fire brigade. Hiking or longer stays in school or youth hostels lead to direct contact with nature or encounters with historic sites. Visits to zoos and museums are popular. Today's primary school is therefore anything but dry "book-learning".

For some time now English has been taught at 120 primary schools in Hesse in the third and fourth school year in the framework of a school experiment. In 1987 more than 12,000 primary school pupils participated in English instruction.

The primary school was introduced in a law (the Reich Primary School Law) dated 28. 4. 1920. Until then special feeder schools, preparing the way for middle and higher schools, existed alongside elementary schools, particularly in North Germany. They were closed down in the years that followed.

The task laid down for the primary school in 1920 of providing education for all children together irrespective of their social background remains undisputed until the present day. In the initial decades "local history and geography" and "general teaching" were the main feature of primary school instruction, but during the seventies the scientific character of specialised teaching took over. The unintended outcome was excessive stress on the transmission of knowledge, leading to overburdening of pupils and a much-lamented decline in character-training. The ministers of education responded to that criticism, and guidelines and curricula for the primary school were revised. The "new mathematics" in the form of set theory, introduced in accordance with Conference of Ministers of Education recommendations (3. 10. 1968), demonstrates the emphasis on the scientific character of what is taught. This innovation led to controversy. The ministers finally accepted the necessity of correction, and more precise guidelines for the teaching of mathematics at primary school, taking into account the experience gained, were promulgated on 3. 12. 1976. These laid down that "The teaching of mathematics must contribute towards a child's general development, character-training, and education. As many abilities as possible should be addressed and furthered. Those include the ability to comprehend interrelationships with the help of numbers, the capacity for logical thought, competence in depiction (corresponding to a pupil's age) of given subject-matter, expertise in combination and geometrical presentation . . . The four basic forms of calculation demand particular attention. The pupil must understand the basic processes, and gain long-term confidence through regular practice and repetition. Excessive practice is, however, to be avoided". The guidelines also lay down the objectives of learning supposed to be attained in classes 1-4. The structuring in terms of thematic groupings to some extent leaves open the sequence in which subject-matter is treated in lessons. Exercises in logic and dealings with sets are supposed to be integrated in the overall presentation rather than being treated in isolation. The set theory favoured after 1968 was thus largely withdrawn.

After the primary school had been in existence for around half a century, the 1969 Frankfurt Primary School Congress attempted a stock-taking of its work. The "Primary School Study Group" was established at Frankfurt, and has provided important impulses towards reforms during the past two decades. Today over 7,000 teachers and scholars are involved across the country. Another comprehensive exchange of experience at a primary school congress in Frankfurt is planned for 1989.

The primary school system was reformed in the seventies. The way ahead was indicated in the "Recommendations on work in the primary school" approved by the Conference of Ministers of Education on 2. 7. 1970. These declared: "The recommendations on work in the primary school should initiate changes with the objective of improving educational work at the basic level of the education system. The school should do greater justice to the individual child with its special abilities and interests, and equip all children with the foundations for the secondary education necessary for life and changing social circumstances. The ministers of education are agreed that the primary school must devote increased attention to the objective of promoting equality of educational opportunities. That requires considerable improvement in staffing and material facilities at the primary school in the years ahead. The ministers of education view that as a crucial task within educational policy."

The main aim of politicians and administrators was to reduce the size of classes. The decline in number of births was of course first felt in the primary school. In 1975 there were still 3.9 million children at primary school, but in 1986/87 the number was down to 2.26 million. 126,869 teachers were at work at such schools in 1975. The total gradually declined to 110,408 in 1983, and then mounted slightly to around 113,000 in 1986. The outcome is that the pupil-teacher ratio, which was still 30.8 in 1975, fell to 20 in 1986. The average class size is at present around 21.4. The far-reaching plans for reform by educational administrations could only partly be implemented in the seventies because of the large classes involved, but there has been a considerable change over the past decade. Reductions in class size make it easier to realise reform objectives. That also very much helps the integration of foreign children, which is a particular problem at the primary school. In 1985 270,940 foreign children attended primary schools – mainly Turks, Yugoslavs, Italians, and Spaniards. That amounts to a federal average of 12% but regional differences are considerable: highest in Berlin with 24.3%, followed by Hamburg with 17.8%, Baden-Württemberg with 15.7%, and Bremen 15.1% – and lowest in Schleswig-Holstein with 4.5%. These average figures are, however, not very revealing with regard to local conditions in large areas. In individual schools in some inner city localities the number of foreign pupils is way above average. It is obvious that German parents endeavour to send their children to schools where the majority of pupils are German, but schools where there are many foreigners offer opportunities for early development of awareness of shared cultural existence, thereby enriching the teaching.

The Conference of Ministers of Education has repeatedly dealt with these problems, approving recommendations on the teaching of foreign workers' children (3. 12. 1971, 8. 4. 1976, and 26. 10. 1979). Such foreign pupils should be enabled to learn German, and children who have difficulties should receive extra lessons. They also have lessons in their mother tongue so as to keep open the possibility of re-integration in schools in their home countries.

A change of course is at present occurring in rural areas. During the fifties and sixties many primary schools in small villages were closed down and replaced by centrally situated institutions with a larger catchment area. People used to talk disparagingly of village schools, but parents today often once again advocate that a small rural community should have a school of its own so as to eliminate transport problems. Baden-Württemberg is especially active in accommodating parental wishes. In 1987 some 50 small primary schools were opened there. Village children are thus spared an often dangerous trip to school. In the core subjects of mathematics and German the combined classes are taught in separate age-groups so far as possible. Only teachers who are especially suitable for such a task and have expressly declared their readiness are employed in small village schools. This guarantees that teachers bring particular commitment to their work. In Rhineland-Palatinate too, it has been possible to keep smaller primary schools (despite low numbers of pupils) if other organisational solutions are not possible within an acceptable distance from where pupils live. In special cases two-class schools, deviating from the basic demand for schools with four year-levels, are allowed to survive.

Primary schools have been criticised for putting too little emphasis on transmitting basic skills in reading, writing, and arithmetic. The ultimate justification for such criticism must remain an open question since these laments have been raised for decades and to some extent become part of a standard repertoire of attacks on schools. In recent years, several Ministries of Education have, nevertheless, issued special recommendations on the teaching of writing at primary school. Correct spelling of German still remains an important personal characteristic, providing a possibility of drawing general conclusions about how educated someone is. A newly-established "Reading Foundation" aims to promote reading and arouse children's interest in literature.

Transfer from a primary school to the orientation (mixed ability) level, *Hauptschule*, or comprehensive does not involve any admission procedure.

Such special procedures do, however, usually exist for transferring to a *Realschule* or *Gymnasium*. The parents and school are jointly involved in the decision over pupils' school careers. An evaluation by the primary school plays a crucial part – alongside parental wishes – in pupils' transfer to secondary education. Schools organise special events so as to try and help parents decide on what form of schooling is best for their child, offering information about different kinds of schools and what they have to offer. In some Laender pupils, who do not fulfil specific minimum requirements and have been advised against higher education, have to undergo a trial period at *Realschule* or *Gymnasium*. The transfer procedure from primary school to secondary education has time and again been the object of political and legal disputes – most recently in Hesse. This involved the question of whether too much is being asked of the primary school by expecting it to issue a recommendation or whether parental wishes cannot be the sole determinant of a transfer.

8.2 School Kindergarten and Entrance-Levels (Pre-Classes)

School kindergartens (pre-classes) have been established for children who are old enough to enter school but whose admission has been delayed. Unlike kindergartens these are state institutions, which are completely integrated in the school system and form part of the primary school. School kindergartens mainly exist in cities. Attendance is voluntary and without charge. Kindergartens have also been established at special schools in some cities in order to provide care for handicapped children as early as possible. In 1960 only 3,100 children attended school kindergartens but by 1986 the figure had risen to 36,800. At present there are 3,372 school kindergartens, including 335 privately-backed institutions.

A link – in terms of organisation and what is taught – between pre-schooling and primary education is being tested in the form of a year of entrance-levels and pre-classes for five- to seven-year-olds. Such experiments in advancing the age when schooling starts were encouraged by the German Education Council. In 1986 they were attended by 25,500 children.

9. Secondary Level I (Lower Level)

Unlike the primary school, which brings together all pupils, secondary level I offers a differentiated range of teaching corresponding to pupils' abilities and inclinations. This differentiation, which also influences the organisation of schools, has been a disputed aspect of policy for decades. The core of the problem is the question of whether the traditional tripartite system (*Hauptschule, Realschule, Gymnasium*) should be retained or replaced by a comprehensive system characterised by internal differentiation. That problem will be considered in section 9.5.

Schools within secondary level I provide pupils with the basic education enabling them to enter vocational training or attend courses at secondary level II. Secondary level I includes as standard schools in all Laender:
- *Hauptschule* (classes 5 to 9 or 10, or 7 to 9 or 10)
- *Realschule* (classes 5 or 7 to 10)
- *Gymnasium* lower and middle level (classes 5 or 7 to 10)

and as standard schools in five Laender and an optional or experimental school in the rest:
- Integrated (or co-operative) comprehensive (classes 5 or 7 to 10)

As a special form: the Bavarian *Wirtschaftsschule* (trade school) (classes 7 or 8 to 10, see section 10.3.2).

In those Laender where classes 5 and 6 constitute the orientation level (see section 9.1), they also form part of secondary level I.

In the seventies the number of pupils in secondary level I rose from 4.3 to 5.3 million, but during the eighties the decline in the birth-rate exerted a particularly striking impact here. Between 1980 and 1986 the number of pupils sank from 5.313 to 3.680 million. The number of teachers did not, however, decline so drastically – merely falling from 266,700 to 237,200. Endeavours by ministers of education to maintain the number of teachers at the highest possible level led to reduction of the pupil-teacher ratio from 19.9 (1980) to 15.5 (1986) in terms of the national average. Developments in the different types of school will be considered separately at a later stage.

These few figures express a basic aspect of recent developments. The ministers of education strove to make use of declining numbers of pupils in the secondary sphere for reduction of the size of classes and improvement of the teaching on offer (see appendices 4 and 5). The Conference of Ministers of Education agreement (16. 6. 1978) on an outline curriculum for pupils in levels 7 to 10 at general schools also paved the way for that. This contains regulations on obligatory subjects and minimum numbers of lessons for pupils at all general schools (apart from certain special schools). With this agreement, laying down the content and organisation of secondary level I, the ministers of education continued their efforts to assure the amount of time devoted to core subjects. German, mathematics, and a foreign language are, for instance, obligatory at all general schools. A second foreign language is added at *Gymnasium*. Minimum total numbers of lessons are laid down for each subject. In addition at least the following subjects are taught as an additional range of compulsory subjects: history, social studies, geography; two science subjects – biology, physics or chemistry; and music, art, and sport. At the *Hauptschule*, work studies are compulsory too – and sometimes also at other kinds of school, depending on Laender regulations. The teaching of religion also depends on rulings in individual Laender. The agreement leaves Laender with freedom to act in accordance with prevalent circumstances and the needs of individual kinds of school.

Almost all pupils in secondary level I are taught English. The development of the teaching of foreign languages will be considered in greater detail in section 18 and in tables 6 and 7 in the appendix.

9.1 *Orientierungsstufe* (Orientation Level – Mixed-Ability)

In most of the Laender, classes 5 and 6 constitute an orientation level for all pupils with regard to their further schooling in secondary level I. The aim of this orientation level is to leave open the decision about where the pupil will go next until the end of the 6th class, and then to reach this decision on a more reliable basis of assessment. The terminology and organisation of this orientation level differs. In Hesse, for instance, it is known as the "mixed ability" level. The educational objectives are nevertheless the same in all of the Laender. The details are contained in an agreement reached by the Conference of Ministers of Education on 28. 2. 1974. The orientation level is either "independent of the kind of school involved" (as in Bremen, Lower Saxony, and parts of Hesse) or "dependent" – i. e. integrated in a specific form of school. There are no orientation levels in Bavaria and Baden-Württemberg – apart from pilot projects. Yet even there educational orientation is practised in classes 5 and 6 within the vertically structured school system. In West Berlin the 5th and 6th classes fulfil the orientation function. The number of pupils in independent orientation levels increased considerably during the seventies, rising within half a decade from 79,000 (1973) to around 314,000, (1978/79). After that numbers of pupils remained constant for several years, and then declined to 225,500 by 1986. That drop is certainly the outcome of demographic factors, but nevertheless also shows that autonomous orientation levels are not longer capable of gaining ground. The great majority of pupils in this age-group therefore participate in orientation levels within a primary school, *Hauptschule*, *Realschule*, *Gymnasium*, or comprehensive.

The orientation (mixed-ability) level is a disputed aspect of school policy up to the present day. When in 1920 the national assembly approved the Reich law regulating primary schooling, there were powerful forces (mainly in the SPD) in favour of six rather than four years at such schools – as is now once again being advocated by the Education and Science Trade Union. Those plans were partly implemented in North Germany after 1945, but such developments were rescinded during the fifties – except in West Berlin. In Hamburg, for instance, the SPD lost the 1953 city elections because of the introduction of six years of primary schooling. A conservative coalition then restored the four-year structure. The outline plan for reshaping and standardising the general state school system, brought out in 1959 by the German Committee for Education and Training, envisaged four years of primary schooling followed by a two-year mixed-ability level within the *Hauptschule*. That was intended to serve the streaming of ability by way of differentiation between core classes and optional courses. The German Committee partly based its views on experiments already under way in Lower Saxony and Hesse. The Laender prime ministers' Hamburg Agreement on standardisation of the education system (28. 10. 1964) expressly permitted mixed-ability or observation levels in the 5th and 6th school years. The German Education Council also advocated establishment of an orientation level in its 1970 educational structure plan. In the 1973 comprehensive education plan, the then federal government and the SPD-ruled Laender called for the setting up of "independent" orientation levels. In a special vote the CDU- and CSU-governed Laender spoke in favour of both possibilities being retained. Organisationally it would thus be possible either to assign the orientation level to the different kinds of schools or to organise it independently.

The curricula in all schools should, however, be unified. These reservations were the outcome of doubts about reducing courses at *Gymnasien* (and in some Laender also at *Realschulen*) by the two lowest classes. When in 1976 the CDU took over political control in Lower Saxony from the SPD, it inherited an extensive independent orientation level – and retained this with a few modifications. Since 1987, for instance, there has been provision for three differentiating levels within English and mathematics from the sixth class onwards. Considerable opposition to continuation of the orientation level has been expressed within the Lower Saxony CDU, particularly at a 1988 special party convention. It was then recommended that the independent orientation level should be retained, but that in places where there are several autonomous orientation levels such a possibility should in future also be offered at *Gymnasium* if parents so wished – i. e. classes 5 and 6 should once again be admissible at *Gymnasium*. The mixed-ability level has also been much disputed in Hesse for decades. That had been introduced, step by step, over large areas since the sixties, and the SPD pressed in 1987 for completion of this process. Before the Land elections (5. 4. 1987) the CDU and FDP reached agreement on re-establishment of a free choice of school after four years at primary school. The coalition won the elections and imposed a legal regulation giving greater weight to parental wishes with regard to choice between the various educational possibilities after class 4 at primary school. Complete freedom of choice is due to be realised from 1. 8. 1988. Parents can then choose between a voluntary mixed-ability level and the vertically-structured school system.

Teachers from all the types of school in secondary level I give lessons in the orientation levels, but *Hauptschule* teachers predominate. These orientation levels entail various differentiations, mostly in English, mathematics, and German. Despite the diversity of organisational forms, the objectives involved in classes 5 and 6 are largely similar. The aims are:

- promotion of the individual pupil's readiness and ability to learn
- orientation in terms of his or her talents, abilities, and achievements
- improvement of decisions about the next educational step
- compensation for social differences.

These objectives are served by unified and joint (or closely approximated) timetables, and by appropriately co-ordinated curricula with a variety of differentiated choices.

9.2 *Hauptschule* (Secondary Modern)

In most of the Laender, the *Hauptschule* comprises five years of schooling (5-9), but there are six (5-10) in North Rhine-Westphalia since the law of 4. 7. 1979, three (7–9) in areas with autonomous orientation levels (as in Bremen, Lower Saxony, and Hesse), and four (7-10) in West Berlin. North Rhine-Westphalia and Berlin are the first Laender to have made the 10th year of *Hauptschule* compulsory within the past decade.

The numbers of pupils at *Hauptschulen* is declining because of the fall in the numbers of births and the continuing demand for longer-lasting, more qualified education leading on to other possibilities. In 1980 1.9 million children attended the *Hauptschule*, but in 1986 the figure was down to 1,227,500. This kind of school nevertheless still provides for more pupils than any other in secondary level I, but has been much disputed in recent years. Hundreds of *Hauptschulen* in North Rhine-Westphalia are due to be shut down because of declining attendance. SPD makers of school policy are of the opinion that over 900 of the 1100 or so *Hauptschulen* there fail to meet the legal minimum requirements. Around 400 are smaller than the envisaged operating size. The opposition CDU views that as a tactical manoeuvre aimed at increasing the number of comprehensives at the expense of the *Hauptschule*. In Laender where the CDU or CSU is in power, strengthening of the *Hauptschule* is a major aspect of policy, involving, for instance, the introduction of a *Hauptschule* leaving certificate which we shall consider later.

In the sixties the *Hauptschule* succeeded the traditional *Volksschule* ("elementary school"). For the most part this incorporated the primary school and the upper level of the Volksschule in a single building. *Hauptschulen* are usually autonomous schools. In earlier times almost every village had its own elementary school. In thinly populated areas there existed into the sixties a small number of single-class elementary schools grouping pupils of all ages, which were disparagingly termed "dwarf schools". The reorganisation of rural elementary schooling got under way in the fifties. Multi-level "central schools" or "community schools" – to which pupils from neighbouring areas were usually transported by bus – were established. During the sixties an aspect of schools policy from the 1919 Weimar constitution was implemented as part of these changes without, however, attracting much public attention. The compromise reached at that time envisaged the introduction of community schools bringing together the different denominations. That now happened in Laender where elementary schooling had previously been denominationally segregated. When the closing down of thousands of small elementary schools in favour of multi-level *Hauptschulen* had been largely completed, the Conference of Ministers of Education reached agreement (3. 7. 1969) on "Recommendations regarding the *Hauptschule*", mainly regulating internal reforms. The objectives of the *Hauptschule* were defined as follows: "The *Hauptschule* should enable the pupil to find access to cultural life, to achieve integration in political and social life, and to participate in working life in accordance with his or her abilities." The educational level of these schools was due to be considerably raised in comparison with the previous upper level at elementary school. That objective was mainly served by the introduction of a compulsory foreign language (usually English but sometimes French in areas bordering on France). The launching of English had already got under way in some Laender two decades earlier but only came close to full implementation in the seventies. The inauguration of "work studies" was new too. These were intended to transmit insights, knowledge, and skills in the technical, industrial, social, and political spheres, and to provide assistance in choice of a job. The teaching of foreign languages, mathematics, and, if possible, German, physics, and chemistry is generally differentiated in accordance with pupils' ability. The schedule of lessons in appendices 19 and 20 shows the subjects taught at the *Hauptschule*.

For decades discussion of educational policy has been concerned with the danger that the *Hauptschule* might develop into a place for "left-overs". In 1986 a federal average of 38% of children attended the 8th class at *Hauptschulen* – and 29.2% *Realschulen*, 27.6% *Gymnasien*, and 5.2% integrated comprehensives. The figures for *Hauptschule* attendance in Southern Germany are somewhat above the national average (Bavaria 41.5%). The situation is similar in Baden-Württemberg, Rhineland-Palatinate, and Saarland. In Berlin, Hamburg, and Hesse, on the other hand, only between 17 and 20% – and in Bremen less than 30% – of pupils still attend a *Hauptschule*. There are several reasons for such a decline. In the city-states and densely populated areas opportunities of secondary education have been diversified. In a Land like Hesse with relatively many comprehensives the *Hauptschule* is inevitably affected. Attempts are often made to make the public think the *Hauptschule* has no future. Dieter Wunder, chairman of the Education and Science Trade Union, recently called it "a discontinued model". This is not the place to consider forecasts about the future of these schools. Ever since the seventies some Laender – particularly Bavaria, Baden-Württemberg, and Rhineland-Palatinate – have endeavoured to 'upgrade the *Hauptschule*. The Bavarian curriculum was revised in 1987/88 so that these schools' objectives took on a more practical emphasis. Transmission of a basic general education is accompanied by assistance towards orientation in new spheres of employment. The number of German and mathematics lessons has been increased. A one to two-week period spent in a firm has become compulsory for all pupils in classes 8 or 9. That practical experience is intended to make choice of a job easier. Over half the *Hauptschulen* now include information studies as an option in classes 8 and 9. The teaching of English has been intensified, and at present over 70% of Bavarian *Hauptschule* pupils learn this language as their choice among compulsory subjects. A special qualification can be gained by pupils whose achievements are outstanding.

The practical emphasis has also been intensified in Baden-Württemberg. Pupils are introduced to the industrial world in their study of "Work – Economy – Technology", closely linked, so far as possible, with vocational schools. There too all pupils in the 8th class must complete two weeks of practical training. A written examination in German and mathematics at the end of the 9th class has existed in Baden-Württemberg since 1984.

In the same year Rhineland-Palatinate published guidelines on further development of the *Hauptschule*. The extensive range of abilities often leads to differentiation within schools. Special courses in mathematics and English are, for instance, arranged for qualified pupils at the start of class 7 whilst the rest are taught as a class-group. The aim is to make teaching vivid, stressing experience and the local environment, without renouncing training in theory. Work studies, incorporating basic training in information technology, and visits to and training sessions in firms, serve this practical orientation. A two-year special programme for strengthening the *Hauptschule* has been in operation since 1986. That includes a competition in work studies and the organisation of regional "*Hauptschule* Days".

In Saarland co-operation between *Hauptschule* and primary school has been intensified. In Hamburg and Bremen the *Hauptschule* and the *Realschule* have constituted a single organisational unit since 1924. The two forms of school are linked through educational tradition, curricula, and a shared range of options. They are also frequently linked in Lower Saxony, Schleswig-Holstein, and Hesse.

Controversy continues over introduction of a tenth year at the *Hauptschule*. As early as 1964 the Laender prime ministers laid down in the Hamburg Agreement on standardisation of the school system that extension of compulsory full-time schooling to a tenth year was permissible. At present that only exists in Berlin and North Rhine-Westphalia. The latter offers class 10 in two forms. The precondition for attending type A is successful completion of class 9. Anyone who then completes class 10 can gain admission to *Fachoberschule* (technical secondary school) by way of completed training and high performance at *Berufsschule* (part-time vocational school). The precondition for attending type B is high achievement in German, mathematics, and English. Successful completion of type B qualifies for admission to *Fachoberschule* and, in cases of outstanding achievement, to the upper level at *Gymnasium*. Pilot projects with voluntary 10th years at *Hauptschulen* exist in several Laender. In Hesse those who complete it receive a special certificate and can gain the *Realschule* final qualification by taking an examination. Bavaria, Baden-Württemberg, Rhineland-Palatinate, and Lower Saxony have expressed their opposition to a tenth year of compulsory schooling.

The former upper level of elementary schooling was a "dead-end", since pupils could transfer to part-time vocational schooling but not to the kind of secondary education that opened up further possibilities. That is not, however, true of the *Hauptschule*. The possibility of transfer between different kinds of school has been effectively improved. Hesse has prescribed a common timetable for classes 5-10. In most of the Laender there exist continuation forms of the *Realschule* and *Gymnasium* to which pupils from a *Hauptschule* can transfer after the sixth, seventh, or eighth class. The extension *Gymnasium* leads to qualification for university entrance after six or seven years.

Completion of the *Hauptschule* opens up the way to:

- practical training (e. g., apprenticeship in a craft trade, commerce, industry, or administration accompanied by part-time attendance at vocational school)
- employment in the lower and middle levels of public service with part-time attendance at vocational school
- attendance at full-time vocational school.

Talented pupils who complete *Hauptschule* can gain the qualification for entering a *Fachhochschule* (polytechnic) by attending a *Berufsaufbauschule* (vocational extension school) and a *Fachoberschule* and for university entrance by way of a sixth-form college or evening classes.

There are no final examinations at *Hauptschulen* in most of the Laender. Up to now Baden-Württemberg has been the only Land to introduce such a centralised examination for all *Hauptschule* pupils. In Bavaria pupils who fulfil special requirements at the end of the 9th year gain a qualification. That examination involves written, oral, and practical tasks, taking in German, mathematics, work studies, and English plus a practical/artistic subject (crafts/technical drawing, textiles, home economics, typing, shorthand, music, art, sport) or a specialised study (physics/chemistry, biology, history, geography, education, or social studies). Anyone who achieves the overall grade of 3 is awarded the *Hauptschule* leaving certificate, which provides admission to a *Berufsaufbauschule*, a *Berufsfachschule* (part-time vocational school), a special 9th class at *Wirtschaftsschule* (trade school), or a special 10th class at *Realschule*. Bavaria is planning to make it possible for holders of this qualification to gain university admission for a specific subject after 15 years of schooling (nine years at *Hauptschule*, 3 years apprenticeship, a year at *Berufsaufbauschule*, and 2 years at *Berufsoberschule* (vocational secondary school)) and even to award unrestricted university admission in the case of outstanding performance.

Despite all the Laender efforts towards intensification of education at the *Hauptschule*, not all pupils there have reached the final class. In 1986, 285,200 gained the leaving certificate and some 43,000 left school without it. For the latter it is not easy to find a training-place. Even though the number of unqualified school-leavers has been reduced in recent years, the question remains as to whether educational objectives at the *Hauptschule* may perhaps have been set too high. That entails a dilemma for the *Hauptschule*. Introduction of a bipartite qualification in Bavaria indicates the broad range of achievement at the reformed *Hauptschule*. Successful completion of *Berufsschule* is viewed as making up for leaving the *Hauptschule* without the final qualification. In Berlin, Bremen, Hamburg, Hesse, and Saarland, there are a small number of evening *Hauptschulen* where people with a job can gain that qualification. Those institutions were attended by a total of 627 pupils in 1986.

Most of those who have been through a *Hauptschule* undergo vocational training. The improved introduction to the world of work and employment provided by the *Hauptschule* offers crucial preconditions for well-founded vocational training. Industry and chambers of trade have welcomed the more recent development of greater autonomy at the *Hauptschule* while increased harmonisation with what is taught at *Realschulen* and *Gymnasien* would reduce the attractiveness of the *Hauptschule*. That is also why the idea of a tenth year at *Hauptschulen* is rejected. The greatest number of trainees still come from these schools, and over half of all *Hauptschule* pupils are trained in manual skills. Further development of the *Hauptschule*, making it an attractive, future-oriented form of school, would demand expansion of work studies, intensification of contacts between *Hauptschule* and industry, improvement of the practical nature of teaching, and more special study groups. It might then be possible to improve the autonomous status of the *Hauptschule*, and to prepare pupils better for starting a job.

A key question within the tripartite school system is whether the *Realschule* final qualification will become the minimum norm demanded by society. The introduction of a 10th year at school intensifies that trend. Where both *Hauptschule* and *Realschule* involve the same length of course (10 years at school), the question of differentiation of lessons at the *Hauptschule* into specialised courses becomes more acute. Would not the necessary consequence be the devaluation of the *Realschule* final qualification? And what happens with pupils who even today have difficulty in completing the *Hauptschule* course? Are not vocational training and a job more meaningful for such pupils than another year at school?

9.3 *Realschule* (Intermediate School)

The *Realschule* seldom hits the headlines, and seems to exist in the lee of politics. That impression is, however, deceptive. The *Realschule* has expanded more than any other kind of school in secondary level I. The number of pupils rose from around 235,000 (1950) to 430,700 (1960), 863,500 (1970), and even 1,351,100 (1980). In the meantime there has been a fall to 975,500 (1986) because of the decline in the birth-rate. In 1986 almost 30% of an age-group attended *Realschule*, which is less than *Hauptschule* but more than *Gymnasium*.

When considering the enormous expansion of *Realschule* schooling in recent decades, it must be borne in mind that some Laender (such as Bavaria and Rhineland-Palatinate) only started large-scale provision of such facilities during the post-war period while others (Schleswig-Holstein and North Rhine-Westphalia) already had a network of these institutions. Only in the past couple of decades, however, has the *Realschule* become available everywhere. At the beginning of the sixties pupil attendance at these "intermediate" schools still fluctuated greatly from Land to Land, but those differences have now largely been made good.

The *Realschule* comprises classes 5-10 or 7-10. The four-class form is found in the three city-states, Bavaria, and where the orientation (mixed-ability) level is autonomously organised – as in Lower Saxony and parts of Hesse. These schools are usually autonomous. In Berlin, Hamburg, Bremen, Hesse, Lower Saxony, North Rhine-Westphalia, Schleswig-Holstein, and the Saarland they are to some extent linked with *Hauptschulen* or integrated in co-operative comprehensives and schools centres. There are a limited number of three-class continuation forms for *Hauptschule* pupils who transfer after the seventh year – and there are also elements of the *Realschule* at special schools.

Realschulen are neither biased towards studies nor towards employment. They thus offer their pupils a dual perspective. On the one hand these schools prepare youngsters for practical functions demanding increased technical, industrial, and social responsibility (i. e. for middle-level jobs), and, on the other, pupils can transfer to more advanced vocational or general schooling – such as the upper level at *Gymnasium*. The *Realschule* differs from the *Hauptschule* in offering a greater range of subjects (e. g. in foreign languages with English usually compulsory and French an option), and in an extra year at school, except in West Berlin and North Rhine-Westphalia, which implemented the tenth year at *Hauptschule*.

The term "Realschule" was first generally introduced in 1964 with the Laender prime ministers' Hamburg agreement on standardisation of the education system. Until then such an institution was usually known as a "Mittelschule" ("middle school"). That older expression, which indicates the bridging function served by this kind of school, was expounded by the Conference of Ministers of Education in their declaration on "The Function of Middle Schools in the Hierarchy" (17. 12. 1953), stressing that "The middle school meets an urgent need within German education and economic life".

The schedule in appendices 19 and 20 provides information on what is taught at the *Realschule*. Teaching in levels 5 and 6 usually involves the entire class. From class 7 (in Bavaria class 8) there is increasing differentiation in terms of subject-specialisation. That was introduced in Bavaria as early as 1949, resulting in compulsory choice between three possibilities: Group I with an emphasis on mathematics, the natural sciences, and technology, accompanied by more lessons in mathematics and physics plus technical drawing. These subjects mainly prepare the way for a technical career. Group II with an emphasis on business and economics offers more lessons in economics and law, accountancy, and shorthand and typing, helping towards careers in business and administration. Group III comprises various emphases in the creative and artistic spheres, domestic science, and social studies. A large number of main subjects are possible here, but individual schools cannot offer all possible combinations. In all three groups French or information studies can be chosen as an option from class 8. French is mainly taken by pupils who want to transfer to upper level at *Gymnasium* or a language school and have to demonstrate their knowledge of a second foreign language. In Rhineland-Palatinate the possibility of choosing French as the first foreign language was introduced in 1982. A compulsory choice between different courses exists there too. After a preliminary choice in class 7 the pupil has to make a final decision at the start of class 9 between three possible courses: languages (with French usually the second), mathematics and the natural sciences, and economics and social studies.

In Berlin four-lesson courses in five spheres are on offer as core subjects. The second foreign language – usually French but sometimes Russian – and the mathematics/science course are each chosen by about a third of the pupils, while the rest decide between economics and social studies, German studies and the arts, and work studies. Such differentiation is intended to be more responsive to pupils' individual aptitudes and interests. In Schleswig-Holstein 35% of all pupils at *Realschulen* make use of the possibility of learning either French or Danish as a second foreign language.

The *Realschule* is particularly popular among girls, and they have for years provided around 53% of the total number of pupils. The figures for girls at *Hauptschulen* is only 45.6% (1986). The great increase in the numbers of pupils at *Realschule* is also an outcome of the fact that this kind of school offers an opportunity to many children from backgrounds where the objective of *Gymnasium* and university entrance seems somewhat remote. The *Realschule* thus serves – particularly in rural areas – the opening up of reserves of talent. Surveys show that the *Realschule* contains a balanced cross-section of the social classes, and virtually corresponds – as is not the case with any other type of school in secondary level I – to the class structure in the population as a whole.

The *Realschule* leaving certificate opens up access to:
- on-the-job training accompanied by attendance at *Berufsschule* (part-time vocational school)

- employment in the middle and higher levels of public service with attendance at *Berufsschule*
- schools in secondary level II (e. g. *Berufsfachschule* (full-time vocational school), *Fachoberschule* (technical secondary school), *Fachgymnasium* (technical gymnasium))
- *Fachschulen* (technical schools; e. g. for domestic science or social welfare)

whereby an eighteen-month or a two-year practical or vocational training must usually first be completed.

In Bavaria the special tenth *Realschule* classes for youngsters with the special *Hauptschule* qualification are highly popular. They enable gifted *Hauptschule* leavers to gain the *Realschule* qualification without any loss of time.

The achievements of the *Realschule* are recognised by industry, craft professions, commerce, and administration. Those who complete this form of schooling mainly find jobs in commerce and the service industries. At the start of 1985 around 36% of all apprentices in industry and trade had the *Realschule* final qualification, and the comparable figure in public service employment was 55.5%. Another 22.2% were receiving training as skilled workers.

9.4 *Gymnasium* (Grammar School)

The *Gymnasium* is the only form of school providing general education that incorporates secondary levels I and II. There do, however, also exist isolated *Gymnasien* which only comprise classes 5 or 7-10, and special upper level centres (classes 11-13). The normal form of *Gymnasium* has nine or seven classes, and comprises classes 5-13 or 7-13 (depending on the number of classes at primary school or autonomous orientation/mixed-ability level). In Hesse the SPD government introduced mixed-ability levels covering most of the Land up until 1987. Since then the CDU-FDP coalition has started to increasingly reintroduce fifth and sixth year levels at *Gymnasien*.

There are a small number of continuation *Gymnasien*, adapted for acceptance of talented pupils from *Hauptschulen* not later than the seventh class, or the tenth class for holders of the *Realschule* qualification and people who have been going to *Berufsfachschule* (full-time vocational school). The

Gymnasium should be seen as a single unit within secondary levels I and II, but it is convenient here to first describe such schools with regard to level I. Details about the *Gymnasium* within secondary level II are in section 10.1.

The *Gymnasium* must nevertheless first be viewed in the overall context. Education is after all directed towards the Abitur at the end of the 13th year of schooling. The educational objective at *Gymnasium* is this qualification, providing admission to university. The *Gymnasium* principally mediates the basic education necessary for academic studies at universities and *Fachhochschulen* (polytechnics), and also establishes the preconditions for training in non-scholarly professions, which make considerable educational demands but do not require a degree.

Gymnasien have been extensively expanded since the mid-sixties. The main objectives of educational policy at that time included increasing the number of those qualified for university admission. From the mid-fifties to the mid-sixties there was only a minimal increase, but then occurred the greatest expansion ever in the history of the *Gymnasium*. The number of pupils rose from 957,900 (1965) to 1,863,500 within a decade, and reached a peak in 1980 with 2,118,000. The decline in the number of births then resulted in a fall to 1,655,800 in 1986, which was about the same level as the mid-seventies. The greatest expansion was thus between 1965 and 1980. In 1960 the number of teachers at *Gymnasien* totalled 48,900, but that rose by over 50% in the following decade to 76,900. In 1975 the total had reached 98,100 and in 1980 121,800. The peak was in 1983 with 124,700. That was followed by a slight fall to 120,260 in 1986. This development made possible a continual reduction in the pupil-teacher ratio which had still been 18.8 in 1970. By 1986 that was down to 16.3 in secondary level I and 10.9 in the upper level.

Expansion was a great challenge for all those responsible for financing schools, particularly cities and local authorities. Around 500 new *Gymnasien* were built between 1964 and 1970 alone. In 1960 there were 1,823 *Gymnasien* in the Federal Republic, and in 1982 2,489. The number has decreased slightly since then – to 2,469 in 1986. Those few figures reveal the unusual density of the network of *Gymnasien* across the country. In the sixties and seventies such schools were mainly constructed in rural areas scarcely served till then. Hardly were the buildings finished than they frequently turned out to be too small. During the phase of expansion many schools were often overcrowded. Buildings intended for around 600 pupils sometimes had to cope with over 1,000. That gave rise to the much-lamented "mammoth schools". Only with the drop in numbers of pupils in recent years could *Gymnasien* once again become manageable schools of normal size – but it is a rare school indeed that fulfils the educational objective prescribed in a celebrated resolution by the 1890 Prussian school conference: "A higher school should never have more than 400 pupils." Even at that time educationists wanted to avoid impersonal mass operations! As the numbers of pupils fell at *Gymnasien*, which was a new kind of problem for such schools, organisational and didactic solutions had to be found in order to maintain a differentiated range of lessons at local institutions. Lower Saxony, for instance, established special regulations in a decree dated 27. 7. 1984. *Gymnasien* should comprise at least two streams up to the tenth class, and no longer four. Even when numbers of pupils fell, *Gymnasien* should in exceptional circumstances be allowed to continue in existence so long as provision for teaching is assured by constant educational and organisational co-operation with neighbouring schools.

The *Gymnasium* has undergone great change in recent decades. It has transformed itself from an elitist school with relatively stringent selection to an institution for pupils from all sections of the population, willing and able to gain the qualification for university admission. With around 27% of each year-group from primary school now attending *Gymnasium*, the teaching methods and educational concepts must necessarily be different from those of just a few decades ago. At that time between 5 and 10% of an age-group transferred to *Gymnasium*. The spread of abilities and inclinations is greater today, the learning tempo more diverse, and greater individual assistance for pupils is therefore indispensable. The nature of *Gymnasium* education with its concentration on preparing for university and the accompanying canon of subjects is, however, disputed. Reforms of the upper level in 1960 and 1972 (see section 10.1) also affected the lower and middle levels. Up to that time *Gymnasien* were usually structured as institutions with particular specialisations: classics, modern languages, or mathematics and the natural sciences. In 1972 such structuring was abandoned at the upper level, but remains for secondary level I in *Gymnasien* – even though in some Laender not expressed in the designation of the school, and despite the frequent merging of institutions specialising in modern languages and mathematics/natural sciences. Only Bavaria still officially employs terminology indicating whether a *Gymnasium* concentrates on the humanities, modern languages, or mathematics/natural sciences. The three types of school differ in the languages on offer or the sequence in which they are taught, and in the importance of mathematics and the natural sciences. The sequence of language-teaching was last laid down in the Laender prime ministers' 1964 Hamburg agreement on standardisation of the education system.

The classical *Gymnasium* starts with Latin (or a living foreign language) in class 5, and with English and French (or Latin) in class 7, and with Greek in class 9. This type of school with its long educational tradition, which up to 1900 was the only institution (in a disputed monopoly) to mediate the full qualification for university entrance, is today attended by less than 1% of the pupils at *Gymnasium*. In 1970 41,400 pupils (around 3%) still learnt Greek as compared with 23,000 in 1985.

Modern language and mathematics/natural sciences *Gymnasien* – now usually combined in a single school – usually start with English (or French). The second foreign language from class 7 is generally Latin (French or English). A third language is optional from class 9 – one of the previously mentioned languages, or Russian, Spanish, etc. The mathematics/natural sciences *Gymnasium* as a rule presents the same sequence of foreign languages, but intensified teaching of science subjects replaces the possibility of a third language. So in the classical *Gymnasium* three languages are obligatory, and in all other forms of this institution two. The curriculum is largely unified in the lower and middle levels (classes 5-7 and 8-10) at all *Gymnasien*, and the broad-based general education differs only in terms of the sequence of language-teaching. In several Laender – such as Bavaria, Baden-Württemberg, and Rhineland-Palatinate – it is also possible in classical and modern languages *Gymnasien* to follow the sequence Latin, English, French (instead of Greek). The schedules in appendices 19 and 22-25 provide information about what is taught. The attempt is made to take into account differing abilities and interests among pupils by way of a diversity of emphases and sequences of teaching. In some Laender there also exist a few *Gymnasien* specialising in foreign languages, economics, or the arts at secondary level I (for special forms of the *Gymnasium* see sections 10.2 and 10.3.5) – in Bavaria, for instance, with *Gymnasien* concentrating on the arts, economics, and social sciences. In an arts *Gymnasium* the emphasis is on German, music, and art – with Latin from class 5 and English from class 7. This kind of *Gymnasium* usually exists in a nine-year form but there are individual instances of the seven-class continuation form. Admission then follows class 6 at *Hauptschule*. The language sequence is English from class 7 and Latin from the following year. Economics *Gymnasien* are characterised by more teaching of economics, law, and accountancy, with English from class 5 and French or Latin from class 7. The seven-year continuation form is also possible, again following on from class 6 at *Hauptschule*, with English from class 7 and

French from class 8. The social sciences *Gymnasium* is particularly concerned with subjects preparing for tasks within family and society – social studies, practical work in social welfare, and domestic science with English from class 5 and French or Latin from class 7.

Transferability between the six Bavarian types of school mainly depends on the sequence of languages selected. On entry to class 5 a pupil must first choose between Latin and English (and in some circumstances French) as the first foreign language. Only at the end of classes 6 or 8 does a binding choice have to be made in favour of one of the six course possibilities. Many *Gymnasien* offer more than one possible course. As in other Laender, parents in Bavaria receive advice from state counsellors and special teachers at every school about the educational possibilities available at the various *Gymnasien*.

The schools with a special emphasis on foreign languages include the Franco-German *Gymnasien* in Freiburg i. Breisgau and Saarbrücken, and the long-established French *Gymnasium* in West Berlin. At these schools French is partly used as a teaching language. Bi-lingual courses (German-French and German-English) also exist at three Hesse *Gymnasien*. Two bi-lingual German-French courses have been established at Munich. Schools in Berlin, Hamburg, Hesse, Lower Saxony, North Rhine-Westphalia, and Rhineland-Palatinate are participating in a nationwide pilot project devoted to "Japanese as a third foreign language". Hamburg has been experimenting since 1980 with a third foreign language as a possible choice among obligatory subjects: French, Spanish, Russian, Latin – and since 1985 also Chinese, Japanese, Arabic, Portuguese, or Italian. In Bavaria six *Gymnasien* offer Italian, six Spanish, and four Russian as a third foreign language.

Rhineland-Palatinate has experimented since the start of the 1985/86 school year with grouping particularly motivated and talented pupils from the seventh class onwards. These special classes should then complete the middle-level at *Gymnasium* in three instead of four years. That reflects the view that too much time is spent on education in the Federal Republic compared with other industrial nations, and should be reduced.

In Baden-Württemberg unified classroom assignments in the three core subjects of German, mathematics, and a foreign language have been the norm in the ten classes from 1985/86. These centralised assignments are intended to guarantee greater justice in assessment of pupils' work. Previously pupils who left the *Gymnasium* after the 10th level almost automatically received the *Realschule* final qualification whereas youngsters actually at a *Realschule* had to take an examination. Centralised class assignments mean that the same demands are made of all pupils.

For pupils who leave *Gymnasium* with the *Realschule* qualification after class 10 in order to start an apprenticeship accompanied by part-time vocational school, the *Gymnasium* serves the same function as the *Realschule* with regard to educational objectives.

Around 85% of *Gymnasien* have computers at present. The intention is that all *Gymnasium* pupils should receive basic training in information technology.

In conclusion: it was often maintained during the great sixties debate on educational reform that the *Gymnasium* was "out of date" and amid the introduction of comprehensives its position within some Laender's education system was and is disputed, but determination to preserve the *Gymnasium* remains strong among extensive sections of the population. Despite all the reforms, the *Gymnasium* – whose educational content has now developed far beyond that of the classical predecessor from which its name derives – is still viewed as the embodiment of the German education system's humanist tradition that many parents would like to see maintained into the future.

Nine years of education at a normal *Gymnasium* provides ongoing preparation for the concluding achievement of qualification for university entrance. The educational objectives of a broad general education, maturity, and readiness for studies are closely linked, and do not involve some special task merely entailing the upper level at *Gymnasium*. If the *Gymnasium* course is deprived of classes 5 and 6 and the upper level is decoupled, then it is no longer a continuum. If that unity vanishes, the *Gymnasium* loses its distinctiveness, and will only be a shadow of the school once honoured across the world.

Bremen, ruled by the SPD for decades, is now the first Land which has dissolved – with a single exception – the *Gymnasium* as an ongoing and autonomous institution. *Gymnasium* courses at secondary level I exist in school centres, and so too do spatially and organisationally separate *Gymnasium* upper levels in secondary level II centres.

9.5 *Gesamtschule* (Comprehensive School)

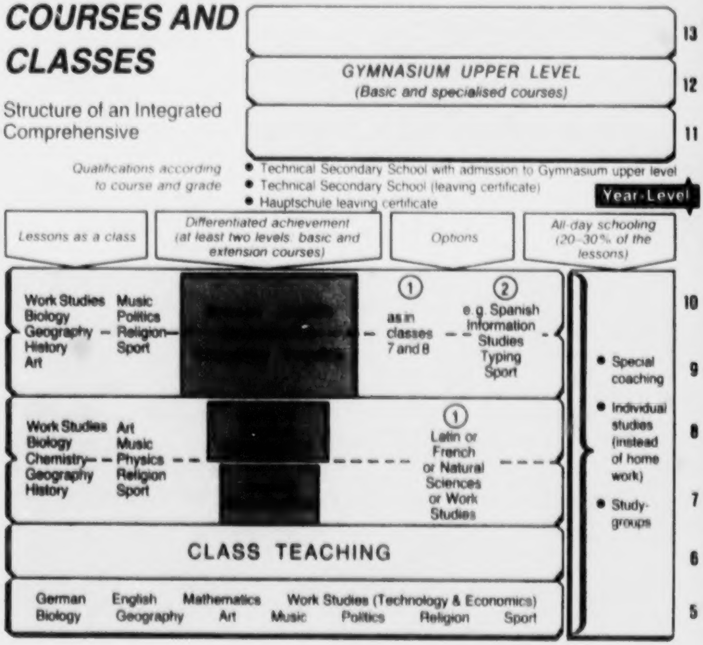
The organisation of secondary sphere I has been the main source of dispute within educational policy since the mid-sixties. The SPD and the associated trade unions advocate reorganisation by way of introduction of integrated comprehensives. They believe that such schools are better than traditional forms in implementing equality of opportunity for children from deprived sectors of the population remote from higher education. The CDU/CSU, on the other hand, advocate constant adaption of the tripartite system to current educational requirements – i. e. further development of the *Hauptschule*, *Realschule*, and *Gymnasium* with each providing autonomous education. They are nevertheless open to trying out new ways of co-operation and integration between the different types of school. The controversy which has already lasted for two and a half decades, sometimes took on the character of a "religious struggle" or a "cultural war", determined by opposing objectives within social policy. The confrontation continues and no end is in sight. Only the strategies have changed.

Comprehensives usually comprise classes 5 or 7-10. Not all such schools are linked with a *Gymnasium* upper level. A basic distinction must be made between two main forms: co-operative and integrated comprehensives.

Co-operative comprehensives generally combine at least a *Hauptschule*, *Realschule*, and *Gymnasium* (up to class 10) as a single organisational – and sometimes also educational and spatial – unit under joint direction. The curricula and teaching structures in these three forms of school are co-ordinated so as to permit a high degree of transferability between them.

Larger numbers of such co-operative comprehensives only exist in Hesse, Lower Saxony, and Bavaria. Berlin, Bremen, Baden-Württemberg, North Rhine-Westphalia, and the Saarland do not have this form of comprehensive. Baden-Württemberg, for instance, only has a loose form of "school associations" whereas Hesse has the highest number of co-operative comprehensives – 118 inclusive of three privately backed. Such co-operative comprehensives normally comprise a mixed-ability level and at least a *Hauptschule*, *Realschule*, and *Gymnasium* section (classes 5 to 10). The following final qualifications can be gained: *Hauptschule* at the end of class 9, extended *Hauptschule* at the end of class 10, *Realschule* and transfer to the upper level at *Gymnasium* in class 11. Teaching is organised in terms of obligatory lessons, a choice between obligatory subjects, and options. Intensive organisational and educational co-operation between the individual varieties of school is intended to ease pupils moving from one type to another. In 1987 Hesse's comprehensives were attended by 101,200 pupils. In Lower Saxony there are 17 such schools (classes 7-10) with 16,300 pupils. Schleswig-Holstein has two co-operative comprehensives (classes 5 to 10) with a total of around 2,000 pupils. Rhineland-Palatinate's three accommodate a total of 4,700. Bavaria has ten co-operative experiments including two under unified direction and eight as an association (classes 5-10) without shared headship, totalling 15,600 pupils. There is also a co-operative comprehensive in Hamburg with around 1,250 pupils.

Integrated comprehensives avoid premature commitment to specific patterns of education, do not distinguish between types of school, combine all pupils in accordance with their age, and strive to take into account the individual pupil's inclinations and abilities through increasing differentiation of


COURSES AND CLASSES

Structure of an Integrated Comprehensive

GYMNASIUM UPPER LEVEL
(Basic and specialised courses)
13
12
11
Qualifications according to course and grade
• Technical Secondary School with admission to Gymnasium upper level
• Technical Secondary School (leaving certificate)
• Hauptschule leaving certificate
Year-Level
Lessons as a class
Differentiated achievement (at least two levels: basic and extension courses)
Options
All-day schooling (20-30% of the lessons)
Work Studies
Biology
Geography
History
Art
Music
Politics
Religion
Sport
①
as in classes 7 and 8
②
e.g. Spanish
Information Studies
Typing
Sport
10
9
Work Studies
Biology
Chemistry
Geography
History
Art
Music
Physics
Religion
Sport
①
Latin or French or Natural Sciences or Work Studies
8
7
• Special coaching
• Individual studies (instead of home work)
• Study-groups
CLASS TEACHING
6
German
English
Mathematics
Work Studies (Technology & Economics)
Biology
Geography
Art
Music
Politics
Religion
Sport
5

Source: DER SPIEGEL No. 27/1988, p. 29.

choice and achievement alongside retention of a compulsory core of common subjects. There are many forms of differentiation within such comprehensives.

In 1969 the German Education Council's education commission proposed that at least 40 comprehensive projects should be established, and that these experiments should be accompanied by scholarly assessments. The outcome was intended to serve as the basis for later decisions on the general reorganisation of secondary level I. The Conference of Ministers of Education took up this recommendation, and reached agreement (on 27. 11. 1969) on implementation of pilot projects. The ministers also committed themselves to subjecting each of these experiments to evaluatory research. The Conference secretariat took on the responsibility of keeping the Laender in touch with what was happening and supplying them with ongoing documentation. That task was fulfilled by the Conference working party on "The experimental programme for comprehensives and all-day schools".

In 1973 the federal government and the SPD-governed Laender urged the introduction of the integrated comprehensive within the overall education plan. The CDU/CSU-ruled Laender responded by referring to the experiments being conducted with comprehensives, and arguing that only when the planned evaluation of the entire programme had been completed and scholarly findings were available could a decision be taken about which secondary level I system offered most advantages or whether the different systems should operate alongside one another. Despite these different views about future organisation of secondary level I, the federal authorities have since 1971 provided financial backing for many experiments with comprehensives on the basis of an outline agreement with the Laender. The Federal-Laender Commission for Educational Planning and the Promotion of Research produced a comprehensive report on these experiments in 1982. The Comprehensive project group's evaluatory survey covered 78 of the experiments assisted by the Commission, taking account of all the scholarly comparative material available by the beginning of 1981. This report signalled the end of the experimental and developmental phase in the majority of Laender where comprehensives were still regarded as experiments.

Several Laender – such as Lower Saxony, Baden-Württemberg, and Rhineland-Palatinate – also brought out their own reports, comparing pupils' performance at comprehensives and vertically structured schools. In his 1987 casebook, "Schulvergleich in der Diskussion" ("School Comparisons under

Discussion"), Kurt Aurin presented a critical interim stocktaking of scholarly discussion of such comparative surveys in the Federal Republic of Germany. When a considerable number of very different comprehensive experiments were under way in the sixties, the Laender ministers of education agreed – as previously mentioned – on joint implementation of a programme of pilot projects. That was based on the idea that the findings of long-term research could ease policy decisions on how the school system should in future be organised. Comparisons between schools were thus accorded high political status. They were, however, only implemented to a limited extent because the number of experiments soon exceeded by far the 40 originally envisaged. In 1977 there were already 299 comprehensives, 156 of which were integrated. The outcome of evaluatory research to date led to great disillusionment. The Federal-Laender Commission's evaluation of comprehensives did not produce any convincing demonstration of general differences, offering clear evidence of the superiority of one or the other school system – and the same is true of more recent surveys. Obviously, comparative investigations of schools can only apprehend specific aspects of the realities of teaching and character-training at individual schools or within a school system. Such surveys do, however, contribute towards pin-pointing the possibilities of achievement as well as limits and problems within two school systems.

The Conference of Ministers of Education reached an initial agreement on regulation of reciprocal recognition of the qualifications gained at integrated comprehensives on 11. 10. 1972. That was viewed as a provisional regulation extending over five years, and it was extended by the Conference on 24. 6. 1977. This was initially intended to cover a further four years, but was several times extended for short periods and ran out in June 1982. The ministers of education then reached last-minute accord (27/28. 5. 1982) on an outline agreement on mutual recognition of these qualifications. That compromise brought to an end difficult and prolonged negotiations. The agreement almost came to grief with a Bavarian veto. The CSU group in the Bavarian parliament insisted that the demands of the vertically integrated school system should be – and remain – the criterion for recognition of achievements at comprehensives. There would otherwise be a danger that comprehensive qualifications might in future undermine demands made in the traditional school system, so that integrated comprehensives to some extent achieved legalisation by way of a Conference resolution. Despite all the doubts expressed by party committees, the CDU and CSU ministers of education voted in favour of the Conference's outline agreement. This lays down that comprehensive pupils achieve the same qualifications at the end of the ninth or tenth class as their fellows at *Hauptschulen, Realschulen*, or *Gymnasien*. Paragraph 16 of the 1964 Hamburg agreement on standardisation of the education system states that educational experiments deviating from the basic structure of schooling approved there require a previous recommendation from the Conference. According to this, a Land that transformed experiments into school norms without the Conference's previous approval infringed the Hamburg agreement and called in question the uniformity of the federal educational system. In the years before 1982 the then SPD-governed Laender of Berlin, Hamburg, Hesse, and North Rhine-Westphalia did transform experiments with integrated comprehensives into established norms, provoking determined resistance from CDU/CSU-governed areas, particularly Bavaria. At the end of the sixties there was still a basic all-party consensus on testing new ways of co-operation and integration in schools, deciding only later, after the accompanying research had been completed, whether such experiments should be pursued further, accepted as the basis for regular schooling, or discontinued. Over the course of time, however, that consensus has turned out to be shaky.

The May 1982 agreement made a considerable contribution towards objectification of opposing political viewpoints within the sphere of educational policy. That brought to an end the experimental phase of the integrated comprehensive. The agreement also documented that widespread introduction of such schools had encountered initial limits as pupil numbers, which have remained at around 190,000 since 1980, also demonstrated. More details about the distribution of integrated comprehensives are contained in the table on the following page.

At the end of the 1985/86 school year in Hesse, school-leavers from integrated comprehensives achieved the following results: 30.5% the *Hauptschule* leaving certificate and 45.7% the *Realschule* school leaving certificate after classes 9 and 10. Of the latter 12.4% were discovered to be qualified for attendance at *Fachoberschule* (technical secondary school) or a vocational *Gymnasium*, and 3.8% for participation in the upper level at *Gymnasium*. 17.5% succeeded in transferring to class 11 at *Gymnasium*.

Wherever Laender governments have changed in recent years, comprehensives have been affected. In Hesse, which until 1987 viewed itself as pioneering SPD educational policy, replacement of an SPD/Green government by a CDU/FDP coalition brought an initial stop to extension of the comprehen-

Integrated comprehensive schools (classes 5–10) 1986

	Schools	Pupils
Baden-Württemberg	7	7,809
Bavaria	3	2,962
Berlin	29	23,151
Bremen	5	2,422
Hamburg	24	17,509
Hesse	73	51,023
Lower Saxony	13	16,878
North Rhine-Westphalia	81	66,479
Rhineland-Palatinate	4	3,368
Saarland	8	2,607
Schleswig-Holstein	2	2,055
Total	249	196,263

Source: Federal Statistics Office

sive system. Classes 5 and 6, hitherto autonomous mixed-ability levels, will in future be linked with integrated comprehensives. In the Saarland, on the other hand, where the SPD took over from the CDU in 1985, a number of traditional schools were closed in 1986 and replaced by 6 new comprehensives. The Saarland schools law, amended by the SPD government on 4. 6. 1986, views the comprehensive as being a standard form of schooling. SPD educational policy-makers, trade unionists, and sympathisers among educationists then called for a new offensive on behalf of the introduction of comprehensives. Considerable numbers of new comprehensive are in fact being built in North Rhine-Westphalia at present. There the opposition CDU has long charged the SPD Land government with "causing unrest among schools" as the result of deliberately and one-sidedly favouring comprehensives.

Experiments with comprehensives were terminated in Schleswig-Holstein by a law dated 21. 6. 1982. Modification of that law created a possibility of allowing the continued existence of individual schools within the general system as an additional educational opportunity. Two of the former experiments survive in a co-operative and two in an integrated form, and the fifth has been transformed into a school centre. That decision was taken by the CDU Land government, which was superseded in 1988 by the SPD. The new government favours the establishment of comprehensives, which are now viewed in Schleswig-Holstein as a standard type of school. In Rhineland-Palatinate a CDU government in 1985 made legal provision for co-operative and integrated comprehensives after over ten years of pilot projects, thus ending the experimental phase. The SPD opposed that amendment because the comprehensive was not declared to be a regular aspect of the system. In the meantime Rhineland-Palatinate has passed an ordinance (14. 7. 1987) on integrated comprehensives, regulating the establishment and structure of these schools more closely.

Discussion about comprehensives is not yet over. It continues to be disputed whether the comprehensive, in either its integrated or co-operative form, is "superior" to the tripartite system – with regard, for instance, to the correctness of decisions about choice of school course, pupils' performances, increasing motivation towards achievement, children's satisfaction with school, social integration, and assistance for children from deprived backgrounds. Pedagogic viewpoints are partly influenced by political ideologies in the assessment of educational opportunities at integrated and co-operative comprehensives. Comprehensives also suffered from having been overburdened during the reform phase with other problems such as changes in the curriculum, making their task more difficult. The great size of a number of experimental schools, known as "mammoth schools", also created social and psychological problems.

The termination of the experimental phase with the Conference of Ministers of Education's May 1982 agreement should also result in reduction of the financial and staffing privileges enjoyed by some comprehensives compared with traditional schools. There is no convincing reason why comprehensives should be better off than the schools of the tripartite system. In other words, the real test of integrated comprehensives' value – under the same conditions as traditional schools – is still to come.

10. Secondary Level II (Upper Level)

Secondary level II within general schooling comprises the upper level at *Gymnasium* and to some extent also at comprehensives, the broad spectrum of vocational schools, and such experiments as the sixth-form colleges in North Rhine-Westphalia.

10.1 Upper Level at *Gymnasium* (classes 11–13)

In 1986/87 the upper level at *Gymnasium* was attended by 608,700 pupils, and there were 19,675 in secondary level II at integrated comprehensives. The total number is thus around three times greater than in 1960 (211,700) and almost twice as many as in 1970 (317,400).

No other aspect of schooling has been so radically changed by reforms during the past three decades. The way ahead was established in two decisions by the Conference of Ministers of Education – the Saarbrücken and Bonn outline agreements of 1960 and 1972. The 1972 Bonn agreement, which made far-reaching changes in the structure of the upper level, has since been revised on several occasions. The latest currently valid version dates from 11. 4. 1988. A number of unintended side-effects and undesirable developments have been corrected. Critical discussions have mainly involved the West German Rectors' Conference, the Philologists' Association, and the Association of *Gymnasium* Teachers. The work of the Conference of Ministers of Education was at times subjected to great political pressures, and it was only after several attempts and a considerable struggle that the crisis was mastered. Judgements by high courts also established criteria for the correction of reforms. Strikes by pupils and large-scale demonstrations accompanied the work of the Conference of Ministers of Education, particularly in 1987. The Conference's outline agreements allow the Laender a degree of leeway, so the upper level is diversely organised – and lack of space prevents description of all the details here. A brief look backwards is however essential for understanding of current discussions.

As everybody knows, the idea of reforming the upper level is as old as the *Gymnasium* itself. Such reforms usually start at that level. Essential impulses have always come from the universities, which demanded intensified achievement on the part of holders of the Abitur and improvements in first-year students' capacity for study. The "Tubingen resolutions" at the "University and School" conference (30. 9.–1. 10. 1951) already aimed at inner reorganisation of teaching, restriction of what was taught, limitation of the number of subjects examined in the Abitur, and abandonment of the principle of strict curricula. The school committees of the Conference of Ministers of Education and the West German Rectors' Conference many times deliberated on the university entrance qualification. The minimum requirements were outlined in the "Tutzing Canon of Maturity" (28.–30. 4. 1958). The Conference of Ministers of Education approved an outline agreement regulating teaching at the upper level of *Gymnasien* on 29. 9. 1960. This Saarbrücken outline agreement reduced the number of compulsory subjects and aimed at intensification of teaching through concentration of subject-matter, promoting training of pupils in intellectual independence and responsibility. Some of the compulsory subjects could be completed by the end of the 10th or 11th class. History, geography, and social studies were amalgamated in classes 12 and 13 as "community studies". The agreement also contained additional recommendations on didactics and methods at the upper level, and laid down the available selection of subjects taught. This reform attracted a lively response, and by no means met with approval everywhere. There was criticism, for instance, of the reduction of the range of lessons in mathematics and the natural sciences, leading to protests by professional associations and university groupings.

Increasing the number of those qualified to enter university has been one of the main objectives of university policy since the mid-sixties. In 1964 Georg Picht called for doubling of the number of holders of the Abitur. That thesis attracted general acceptance. This expansion at the same time intensified many pupils' "motivation crisis" – their lack of interest in what was taught at the upper level. After years of experiments at schools and negotiations with the West German Rectors' Conference, the ministers of education approved (7. 7. 1972) the Bonn agreement on reorganisation of the upper level at *Gymnasium* as secondary level II. It was thus a response to criticism of the 1960 Saarbrücken agreement, emphasised reform of the curriculum, and established the organisational preconditions for its implementation. The objective was to individualise learning and increasingly adapt subject-matter and forms of teaching to university demands. The German Education Council's structure plan had, after all, called for increased "orientation towards science". Also conceded was the possibility of trying out co-operation between general and vocational courses as, for instance, happens in North

Rhine-Westphalia's "sixth-form college". The objectives there, however, extend far beyond reform of the upper level since an attempt is made to integrate the two kinds of course (further details below and in section 10.2). Two innovations in school organisation are particularly important. The upper level is no longer organised in terms of types of *Gymnasium* (classical, modern languages, mathematics/natural sciences); and classes 11–13 are replaced by a system of basic and specialised courses. Since 1972 teaching has been organised in terms of compulsory and optional classes in a ratio of around 2:1 with 30 lessons a week. A distinction is made in both spheres between basic and specialised courses depending on the subject. Basic courses should offer two to three lessons a week in German and mathematics, and at least three lessons in foreign languages. Specialised courses are intended to provide deeper scholarly understanding and expanded knowledge with at least five and usually six lessons a week. There is no fundamental difference – merely a gradual transition in depth – between the two kinds of course. The choice of main obligatory subjects includes German, foreign languages, art, music, philosophy, religion, community studies, history, geography, social studies, economics, mathematics, physics, chemistry, and biology. Optional courses take in the previously mentioned subjects plus education, psychology, sociology, law, geology, astronomy, technology, statistics, data-processing, etc. The agreement lays down in detail how many lessons a week the pupil must attend in both compulsory and optional subjects at the upper level. The following applies until 1989. Teaching units change every six months, and the pupil must choose two specialised subjects – with either a foreign language, mathematics, or a natural science as the main commitment. The second such subject can be selected from a broader range of possibilities. The Bonn agreement also allows Laender to insist on a third specialisation, if need be introducing additional regulations about the way subjects and courses are combined. The reorganised upper level has thus developed in a variety of ways in different Laender.

The reorganised upper level is basically a three-year course but the agreement does also provide for individualisation of learning-speed. For the individual pupil the course can take a minimum of two years and a maximum of four. Able pupils are thus given the opportunity of taking the Abitur a year earlier than previously – after at least twelve years of education – but few actually do so. The agreement also contains regulations about the Abitur examination and the assessment of achievement. The pupil is examined in four subjects (three written examinations). Achievements in the course of upper level at *Gymnasium* and in the actual Abitur examination are evaluated on the basis of a points system based on the traditional grades 1–6 (see below and section 14).

The reforms described so briefly here led after 1972 to serious disputes in the spheres of educational policy, constitutional law, and the law as applying to schools. Preservation of the historical continuity of *Gymnasium* development had been an uncontroversial matter until the Conference of Ministers of Education's 1960 outline agreement – even though some reform concepts, such as the opening up of the upper level, may only have been gradually implemented after decades of discussion and many pilot projects. The 1972 reform of the upper level may also have had the objective of assuring further development of the upper level against a background of historical continuity, but nevertheless entailed a strong attack on the traditional structure of the *Gymnasium*. People even spoke of the most profound change in the *Gymnasium's* history and a break with tradition. Criticism was mainly directed towards the lack of staff and space for a course system. The reforms were, after all, carried out at the peak of school expansion in a time of overcrowded *Gymnasien*. Lack of teachers at that time often restricted the number and nature of courses possible. The situation was made even more difficult by the fact that educational and didactic issues were not resolved before the introduction of reforms, and the curricula necessary for such courses were also only developed as reforms proceeded. In addition the ending of age-based classes was viewed as problematic. Unusually great administrative efforts are called for in the preparation of six-monthly changes, the distribution of teaching, and the selection of courses. Pupils continue to be confronted by difficult decisions when choosing their specialisations. In earlier times they generally made a choice of profession after the Abitur, but now they must take later vocational interests into account as early as the start of upper-level when selecting their specialised subjects. Diversity of regulations also increase the difficulty of changing schools. The objective in the upper level used to involve providing a broad general education and an overview of such spheres as history, literature, geography, the arts, and religion, but the reforms led to premature specialisation, even partially preempting university studies. A decline in knowledge of history, foreign languages, and even the natural sciences, depending on the degree of specialisation chosen, was much lamented. The advantages of pupils now largely being able to choose their own specialisations without being restricted by the type of *Gymnasium* involved were, however, recognised. Multiple possibilities of choice open up individualised courses of study offering an opportunity of exemplary in-depth absorption – as opposed to the previously often regretted overabundance of subject-matter.

The West German Rectors' Conference several times expressed critical views about reform of the upper level, warning against the danger of premature specialisation by pupils. It advocated restriction of options in favour of broadly-based compulsory subjects. The rectors believe that German, mathematics, two foreign languages, two science subjects, and history should be compulsory throughout the upper level. That range of subjects is viewed as being an essential part of readiness for studies. Sport, an arts subject, and religion are also considered necessary components of school instruction. Such criticism was expressed at the end of the seventies, and only a decade later was it largely transformed into action by the Conference of Ministers of Education.

Even before the 1977/78 reforms had been implemented in all the Laender – with Baden-Württemberg last of all – the Conference felt a need to reconsider them. Those deliberations became urgent as the result of a decision by the Hesse administrative court at Kassel in 1976. This court ruled that a reform which encroached to such an extent on the structure of the school system, and also on parents' and pupils' fundamental rights, required parliamentary legislation by the Laender rather than just promulgation of an ordinance. Hesse had to assure continuation of upper level reforms by passing a law to that effect. The Conference of Ministers of Education resolved on 13. 9. 1976 to persist with the objectives, structures, and principles entailed in this reform, and to take Laender experiences into account in further developments. The complementary accord (2/3. 6. 1977) on unified implementation of the agreement on reorganisation of the *Gymnasium* upper level as secondary level II served that objective. The ministers of education made clear that they viewed the provision of a broad general education at upper level in the same way as the West German Rectors' Conference. Their recommendations on work at the upper level (2. 12. 1977) elucidated the basic educational principles, outlined the main objectives of learning (self-reliant learning, work serving as a preparation for higher studies, and character-formation), and described teaching procedures, organisation of social relations, provision of advice, etc. At that time it was largely assumed that discussions would enter into calmer waters, and could basically be viewed as concluded. By no means though. In the years that followed, criticism of the reformed upper level even increased. The Philologists' Association, the West German Rectors' Conference, university teachers, and makers of educational policy provided support for the demand that the core subjects of German, foreign languages, mathematics, the natural sciences, history, and the arts should be taught continuously up to the Abitur. A ruling by the Hesse high court (30. 12. 1981) was of particular significance in that context. It marked a decisive stage in a more than ten year-old dispute between the Hesse Parents' Association and the Hesse Ministry of Education, then under Professor Dr. Ludwig von Friedeburg and Dr. Hans Krollmann (both SPD). The judgement concerned the following main issues:

- the objectives of education as guaranteed in the constitution, especially assuring the broadest possible range of general knowledge
- ongoing teaching of German up to the Abitur
- the autonomy of history as a subject
- the roles of the age-based class and the course system, and the thematic sequence followed by courses and subjects.

That ruling did not either directly invalidate the legal regulations prevailing in Hesse at that time, or formulate any solution for changes in the law, which is the legislator's task. Hesse then changed the law affecting the upper level, but it was disputed whether this amendment completely accorded with the judgement. The South German Laender, above all, restricted the freedom of choice allowing a degree of leeway under the terms of the Bonn agreement, and thereby gave rise to discrepancies between the Laender and further discussions. The Conference of Ministers of Education then revised (21. 10. 1983) the 1977 agreement on unified implementation of the 1972 accord. The points of discord during the following years were: extension of compulsory subjects to take in German, a foreign language, mathematics, and a natural science; alteration of the weighting between specialised and basic courses; recognition of qualifying courses leading to vocationally-oriented general university admission; and continuation of unified examination demands. Those standardised demands, laid down in 1979, resulted in intensification of work on curricula, exerting a positive impact on Abitur standards and the examination's reputation at university.

There were also intensive negotiatons about continuation of the reorganised upper level at *Gymnasium* during the 1987 gathering of the Conference of Ministers of Education. After three years of consultations agreement was reached (1. 10. 1987) on revision of the Abitur. The "Agreement on the continuation and unified implementation of accords on upper level at *Gymnasium*" was approved on 4. 12. 1987. That served as the basis for acceptance (11. 4. 1988) of a new version of the 1972 agreement, which now regulates organisation of the upper level. The preconditions have thus been established for unified nationwide regulations governing acquisition of the university entrance qualification. That is intended to ensure a broad general education and a varied spectrum of possible specialisations. The minimum demands have been increased, and courses at specialised *Gymnasien* and vocationally-oriented training leading to a dual qualification (university entrance and a job qualification) have been recognised nationwide for the first time. From 1. 8. 1989 all pupils have to take two subjects – chosen from German, a foreign language, and mathematics – right up to the Abitur. That has long been the case in most Laender. In Hamburg, where the greatest possible degree of choice has prevailed until now, that regulation will become valid from 1996 after a transitional period. The new Abitur regulations will not be implemented there until 1999 – but who knows what the situation will be by then.

History and the natural sciences have been upgraded. In future German, a foreign language, or mathematics are prescribed for examination in the Abitur. Only one foreign language can be presented, and that must already have been taken by pupils at the intermediate level. That entails a degree of restriction for pupils who transfer to the *Gymnasium* upper level from a *Hauptschule* or *Realschule*. Achievements contributing to the overall grade have been re-weighted. Basic courses have been up-graded, and specialised courses down-graded. Greater importance is thus now attributed to basic knowledge. New too is a regulation also permitting German to be chosen as the chief specialised subject, provided that mathematics or a foreign language is included among the subjects examined for the Abitur. That agreement was only achieved after recognition of qualifications gained at sixth-form colleges and vocational *Gymnasien* was included as part of a compromise. Controversy over the sixth-form college blocked negotiations on revision of Abitur regulations for months. In North Rhine-Westphalia there are 22 sixth-form colleges, which lead to a dual qualification – university entrance and vocational certification. Reciprocal recognition of such dual qualifications entails a number of conditions. Courses at upper level are extended from three to four years, for example. Special applications can be made for experimental schools with three year courses.

Agreement was also reached on continuation or completion of unified examination demands, which constitutes an essential aspect of the accord.

In conclusion, the importance of the role played by the West German Rectors' Conference during prolonged disputes over the upper level and the

Abitur must be stressed. Time and again the Conference pointed to the inadequate qualifications of some first-year students. Such reservations exerted a considerable influence on the ministers of education's most recent regulations. It should be added that in the same year as the Conference approved the Bonn agreement on reform of the upper level, lack of university places necessitated reorganisation of admission procedures (see section 14). Even though this first nationwide regulation of restrictions on entrance was not directly caused by reform of the upper level, since the Numerus clausus was the outcome of a doubling of holders of the Abitur within just a few years, it nevertheless exerted a considerable [illegible]cial and psychological impact on such reforms and the upper level as a whole. The educational climate of the upper level was permanently changed. Up until 1972, holders of the Abitur could study whatever they wanted in Germany no matter what their grade. Then a specific number of points was prescribed for over-filled faculties. For instance, only applicants with very good average marks could study medicine or dentistry. The "hunt for points" was, and still is, felt as pressure to produce results, intensifying pupils' competitive behaviour. Since that time basic and specialist courses have to some extent been "strategically" selected with a view to the highest possible number of points rather than their relevance for studies or education as a whole. The educational aspects of reform were thus called in question from the start.

10.2 Special Types of *Gymnasium*, Specialised *Gymnasien*, and Sixth-Form Colleges

These special forms involve all types of *Gymnasium* apart from those focusing on classics, modern languages, mathematics, and the natural sciences. Since the beginning of the fifties their number has constantly increased, with courses leading partly to general university admission, partly to specific studies. These schools came partly under general and partly under vocational education. They include *Gymnasien* specialising in economics, technology, domestic science and nutrition, agriculture, the arts and education, and textiles. They mostly only comprise the upper level (classes 11–13). A large number of these schools were closed down after the 1972 reform of the upper level since that was one of its specific objectives. The latest version of the agreement on reorganisation of the upper level, concluded by the Conference of Ministers of Education on 11. 4. 1988, contains a list of these specialised *Gymnasien* devoted to economics, technology, nutrition and domestic science, agriculture, and social welfare, and leading to the general qualification for university admission. Vocational and technical *Gymnasien* will be considered in greater detail in section 10.3.5.

Also worthy of mention here are the arts, economics, and social studies *Gymnasien* in Bavaria, which exist in nine or seven-class versions. Those are viewed as a standard form of school (see section 9.4). The *Kolleg* (sixth-form college) has been in existence in North Rhine-Westphalia as a pilot project since 1977. These schools attempt to link general education with vocational and practical courses. The legally defined intention is that "Pupils should be enabled by way of differentiated teaching without assignment to the differing types of school to attain secondary level II qualifications through courses leading to university entrance and vocational qualifications". A truly sybilline sentence! These experimental schools are organised in different ways. The to date three years spent at the sixth-form college conclude – according to the pupil's choice – with a qualification for university or polytechnic admission, or a vocational qualification as technical assistant. The number of such schools has gradually increased to 22, attended by over 50,000 pupils. The core of this experiment is attainment of the general university entrance qualification by way of vocationally oriented curricula and schedules, so it was not initially possible to integrate this process in the agreement on reorganisation of the upper level. That only occurred in the previously described compromise reached by the Conference of Ministers of Education in 1987/88. The courses at these colleges will in future be extended from three to four years. A 1987 study by North Rhine-Westphalia's Institute for Schooling and Further Education showed that in 1983 only 4,000 out of over 50,000 college pupils were attending full-time dual courses also qualifying them for university studies. Almost half the total number of pupils previously attended *Realschule*, and around a quarter a *Hauptschule*.

The laboratory school and upper level college at Bielefeld, established on the initiative of Professor Dr. Hartmut von Hentig in 1974 so as to try out new forms of university admission, is a special kind of institution. This laboratory school takes in the primary level and secondary level I. Classes in the upper level college take four years within a system involving new kinds of teaching. The college, which is also a research institution, is trying out new ways involving inner reform of the *Gymnasium* upper level and basic university studies. Its 800 or so pupils – around 200 in each age-group – are selected by means of a special process.

10.3 Vocational Schooling

The importance of vocational schooling within educational policy is already underlined by the fact that over 60% of all young people aged between 15 and 18 make use of the facilities provided. This highly-differentiated system is organised in a multiplicity of types of school and specialisations that may at first seem confusing to the outsider:

- *Berufsschule* (Part-Time Vocational School)
- *Berufsfachschule* (Full-Time Vocational School)
- *Berufsaufbauschule* (Vocational Extension School)
- *Fachoberschule* (Technical Secondary School)
- *berufliches Gymnasium/Fachgymnasium* (Vocational Gymnasium)
- *Fachschule* (Technical School).

Tables 8 and 9 in the appendix provide information about the distribution of pupils between these types of school. These diverse schools and specialisations are by no means "relics" of a historical process. They should be comprehended as a flexible response to the changing demands of industry and society and to new emphases in technical development. Even though vocational schooling is not organised as a completely graduated system, the Conference of Ministers of Education has nevertheless succeeded over the past three decades in largely co-ordinating this sphere and opening up possibilities of attainment of the qualifications for polytechnic and college entry.

For the great majority of young people, training after completion of secondary level I involves the dual system of learning "on-the-job" and attending *Berufsschule* (part-time vocational school). The number of youngsters who go on to *Berufsfachschule* (full-time vocational school) where courses completely or partly replace in-firm training is, however, stagnating.

The Laender are responsible for vocational training within schools, and the federal authorities for other sources of such training. After some 50 years of effort, a vocational training law (Berufsbildungsgesetz) was approved in 1969, creating a nationwide foundation for vocational training. The law accepts the dual system of training in firms and at vocational school. Responsibility for school training was not included in the law for constitutional reasons. The law does, however, apply to all jobs and branches of industry (with the exception of training for the civil service and on board ships). Different levels of vocational training and retraining inclusive of correspondence courses and programmes for the handicapped are regulated here. It is laid down that the trainee should be provided with the basic knowledge and specialised skills needed for practice of a qualified trade. The law also led to the establishment in West Berlin in 1970 of the Federal Institute for Research into Vocational Training, which was later transformed into the Federal Institute for Vocational Training (see section 4) in accordance with the employment assistance law (7. 9. 1976). Its main tasks are to help in the preparation of training regulations, support the establishment and further development of regional training centres, compile and publish (annually) the register of recognised training courses, and evaluate correspondence courses in the vocational sphere. The main objective of the 1976 law is to counter unemployment among young people and to assure the necessary training-places for the younger generation.

The vocational training law of 14. 8. 1969 was the outcome of compromise between the CDU/CSU and the SPD in the Grand Coalition. A few years later the SPD/FDP federal government planned a revision. This was approved by the federal parliament but the draft law was then blocked by the upper house where CDU/CSU- governed Laender had a majority. The main source of dispute was the financing of vocational training. The Social Democrats and allied trade unions called for "a contribution towards training" from all firms so as to finance the costs incurred by companies actually providing training. That contribution was supposed to replace financing by individual firms. Since this amendment did not get through, the federal parliament passed a new law for the improvement of the supply of vocational training places (Ausbildungsförderungsgesetz, 7. 9. 1976), but the federal constitutional court declared this null and void on 10. 12. 1980 in response to Bavaria's complaint that this law required approval from the upper house. A new law (23. 12. 1981) for the assistance of vocational training through planning and research (Berufsbildungsförderungsgesetz), which largely retained the financial regulations in the previous legislation, took into account the federal court's criticism of unconstitutional directives. Since 1977 the federal government has published an annual report on vocational training, rendering an account of its development. The past decade's reports offer a comprehensive survey of supply and demand with regard to training places, general perspectives, regional developments, organisation of specific forms of training, further training, vocational training for young foreigners, and the costs and support involved in such activities.

The regulations governing in-firm training are issued (on the basis of the 1969 law) as ordinances by the relevant minister with the agreement of the

Federal Minister of Education and Science. The co-ordination of on-the-job and school training is necessary in the dual system, so the federal government and the Laender ministers of education reached agreement in 1972 on a procedure serving the standardisation of ordinances and outline curricula. Such harmonisation is regulated by a co-ordinating committee grouping officials from the Federal Ministry of Education and Science, other federal ministries responsible for specific aspects of vocational training, and all the Laender ministries of education. Regulations are drawn up by groups of experts appointed by the Federal Ministry of Education and Science in conjunction with the other specialised ministries involved. The outline curricula for teaching of individual subjects at vocational schools are developed by study-groups appointed by the Conference of Ministers of Education. The Federal Institute of Vocational Training also plays a part in the co-ordination of Laender training regulations and school outline curricula. The Federal Ministry of Education and Science publishes an annual register of recognised forms of training with the accompanying ordinances.

Since the 1969 vocational training law came into force, the number of recognised forms of training has declined considerably. In 1971 there were still 606 jobs for which training regulations existed, but in 1987 there were only 380. A large number of forms of training have thus been discontinued. That at the same time demonstrates that the state and industry are endeavouring to take account of rapid technological developments and increase the vocational mobility of young people whose opportunities on the labour market would be restricted by narrowly defined forms of training. An example is provided by the regulation (15. 1. 1987) of courses in the metal industry, which reduced the jobs for which training was available from 38 to 17. During the past two decades existing training regulations have been modernised, new ordinances have been developed, and outdated jobs have been abandoned.

During the seventies discussion of educational policy, there were frequent calls for nationalisation of all vocational training. Critics objected to in-firm training being administered by industry rather than the state. It remained disputable, however, whether nationalisation would ultimately be advantageous for young people, and the problem of assuring finance is still unresolved.

The vocational training system has been comprehensively regulated by the Laender ministries of education in laws, decrees, and ordinances. Vocational schools have a long tradition in Germany, experiencing rapid growth in the nineteenth century. State vocational schools sometimes developed out of church Sunday schools which served general education. A differentiated vocational system came into being, but it was long before such training became generally obligatory. In 1873 Saxony became the first state to establish a compulsory three years of further training for boys. Article 145 of the 1919 Weimar constitution provided for compulsory schooling until completion of the 18th year, basically involving attendance at elementary school followed by attendance at a *Fortbildungsschule* (school of further education). The latter expression shows that this form of school was originally intended to extend elementary education. The 1920 Reich school conference recommended that this designation should be replaced by the term ***Berufsschule*** (trade school), which more accurately expressed the autonomous objectives and special tasks involved. Attempts to pass a law regulating such schools failed during the Weimar Republic for political and financial reasons. A general obligation for both boys and girls to attend trade school was, nevertheless, largely established. The first nationwide unified ordinance (6. 7. 1938) came with a law regulating compulsory school attendance. Since 1948 the Conference of Ministers of Education has expressly sought to achieve far-reaching unification of the diversity of vocational training. That endeavour is demonstrated in an abundance of agreements. The ministers have several times clarified the terminology employed in vocational schooling – most recently on 8. 12. 1975. The Conference defined the following terms, elucidated below: *Berufsschule*, *Berufsfachschule*, *Berufsaufbauschule*, *Fachoberschule*, and *Fachschule*.

The agreements of the Conference of Ministers allows the Laender a certain amount of leeway in order to accommodate developments. For example, the curricula of the vocational schools reveal certain differences from Land to Land. Regulations for in-firm training, however, are set down with standards applicable nationwide in the vocational training law.

Important impulses towards the reform of vocational training came from the German Committee for Education and Training, which in 1964 published an assessment of vocational training and schooling past and present. The concept of the "dual system" used there to designate simultaneous training on-the-job and at vocational school as had existed in fact if not in name for over a century became general usage.

For young men the most popular traineeships are as motor mechanics, electrical fitters, machine fitters, painters and varnishers, carpenters, gas- and water-plumbers, wholesale and foreign trade clerks, bank clerks, bakers, and works mechanics; for girls, as hairdressers, sales-staff, office clerks, specialised sales staff in the food industry, industrial secretaries, nurses, dental assistants, bank clerks, retail sales staff, and office staff. That makes clear the continuing existence of jobs specifically for boys or girls. Only a few girls to date have been interested in training for commercial and technical jobs. Pilot projects strive to attract more girls to such employment.

Apprentices' previous schooling and age have changed in recent years. In 1970 around 80% of the 15- to 17-year-old applicants for an apprenticeship came from a *Hauptschule*. By 1986 that figure had sunk to 45% – while 44% had completed *Realschule*, and 15% were qualified for university entrance. One outcome is that half of those at vocational schools are over 18 – i. e. have reached legal maturity – before starting on their training.

At the end of the seventies and start of the eighties, one of the chief problems within educational policy involved making sufficient training-places available for large numbers resulting from high birth-rates in the sixties. By now they have largely passed through the education and training system. The number of young people seeking a training-place may have declined but the demand still remains relatively high, mainly because increasing numbers of girls learn a trade and the number of boys who have completed *Realschule* or *Gymnasium* entering vocational training has almost doubled in recent years. In 1986 almost a third of those qualified to study endeavoured to get an apprenticeship.

The 1987 report on vocational training makes clear the improvement in the situation. The supply of training-places in the Federal Republic exceeded the demand for the first time since 1981. Only in the three city-states and in Lower Saxony and North Rhine-Westphalia was the reverse the case, but the short-fall has become less. The number of newly-concluded training contracts up to 30 September 1987 amounted to 646,000. 34,000 applicants registered with labour offices still had to find a place, which was 12,000 less than in the previous year. In some trades and regions a lack of young trainees is already becoming apparent, while elsewhere there is still a shortage of training-places. Many youngsters, and particularly young women, crowd into a limited number of jobs which have always been in demand.

10.3.1 *Berufsschule* (Part-Time Vocational School) and the Year of Basic Vocational Training

Berufsschulen were attended by 1,857,200 pupils in 1986. Attendance at such a school is compulsory for all young people who have completed fulltime schooling at secondary level I and are either receiving initial training or have a job. Attendance at a *Berufsschule* usually lasts three years – up to the age of 18, or in some Laender until completion of vocational training.

The organisational form of the *Berufsschule* depends on the economic structure and the density of population in the area served. During the past two decades, many less-structured schools were merged to form larger and more efficient systems. In large cities schools for different trades predominate. Five main vocational courses are to be found in the Laender: industry, commerce, home economics, agriculture, and mixed. The Laender and the district and local authorities have done much to improve the vocational school system. Today many *Berufsschulen* are "exemplary" of their kind, and as such often the object of official visits by foreign guests.

Young people have up to 12 hours lessons weekly (over one or two days) at *Berufsschule* alongside three or four days of training in firms or their jobs. The basic idea behind the dual system is that really valid vocational training requires an introduction to both practice and theory. Two factors distinguish the *Berufsschule* from other vocational schooling. It is usually a part-time school and fulfils its function in co-operation with firms' training facilities. Teaching at such schools can be provided in blocks of lessons rather than in less structured units. Blocks extending over several weeks at school then alternate with periods when young people spend all their time receiving in-firm training. The prevalence of block-teaching is increasing, especially in North Rhine-Westphalia and Rhineland-Palatinate. Experiences with such a block system vary. It has long been practiced in jobs with a very small number of trainees (known as "splinter" jobs). Centralised Land *Berufsschulen* then provide instruction, sometimes inclusive of boarding facilities.

The task of the *Berufsschule* – according to the Conference of Ministers of Education resolution dated 8. 12. 1975 – is "to transmit to the pupil general and specialised knowledge paying particular attention to the demands of vocational training". Specialised instruction, which accounts for about 60% of the teaching, takes into account the training regulations for different trades. The remaining 40% of the teaching takes in general subjects such as German, community studies, social studies, economics, religion, and sport (see appendix 26 for a schedule). Pupils at such a school generally devote the first year to basic studies and the following years to specialisation. At the initial level a general introduction to working life is presented. In the second and third years pupils are prepared for the final examination in their specific trades. Part-time vocational schooling usually concludes without any special examination. The Conference of Ministers of Education reached agreement on 1. 6. 1979 that a certificate would be issued "if a pupil after regular attendance at *Berufsschule* attained the objective of the course involved by demonstrating at least satisfactory achievements in all the subjects taught. The possibility of making up for unsatisfactory performance in individual subjects is dependent on Laender regulations". It is up to the Laender to decide whether a pupil who attends *Berufsschule* until the age of 18 but does not achieve a satisfactory standard may be allowed to acquire this certificate at a later date. Successful completion of such a school is viewed as being equivalent to finishing the *Hauptschule* course for youngsters who had previously failed to do so. The leaver's certificate permits entry – in conjunction with proof of successful conclusion of vocational training (i. e. a certificate of proficiency or articles) – to technical schools. The *Berufsschule* certificate has, however, recently been upgraded, for example, in Hesse, Baden-Württemberg, and Bavaria. In Hesse a qualification comparable to conclusion of the *Realschule* can be gained in certain circumstances (additional lessons and achievement of specific requirements). The same applies in Baden-Württemberg when completion of *Hauptschule* or *Berufsschule* is linked with specific vocational qualifications in industry, agriculture, and various skilled trades. Bavaria has also introduced a *Berufsschule* qualification in recognition of good achievements at school and in on-the-job training.

Year of Basic Vocational Training

The year of basic vocational training is one of the reforms introduced during the past two decades. The number of pupils involved increased from 4,000 in the 1971/72 school year to over 100,000 a decade later. In 1986 some 69,000 pupils attended such full-time training and a further 18,200 the part-time version. As the first stage in vocational training, this year is either spent full-time at school or as part of the dual co-operative system. The outline agreement reached by the Conference of Ministers of Education (19. 5. 1978) lays down that its function is "to mediate general and broad-based theoretical and practical subject-matter as basic vocational training.

This serves as the basis for the more specialised training that follows on from this first year".

The full-time year of basic training usually replaces the first year of in-firm training (see appendix 27 for a schedule). Thirteen spheres of employment are at present involved. Crediting this year within the total length of training is regulated by the Federal Ministry of Economics. Vocationally oriented teaching usually amounts to 26 lessons a week. The co-operative form, involving both firm and school, provides for between two and two and a half days of teaching per week. In both forms, the training objectives, and the practical and theoretical subject-matter, are concerned with large-scale aspects of work (i. e. industry and administration, metallurgy, eletrical engineering, and civil engineering) rather than a specific trade.

Young people are accepted for this year of basic training after completion of the nine years of compulsory full-time schooling. Youngsters who left *Hauptschule* without achieving the final qualification can make up for that by successfully completing the training year. It will then be testified that this corresponds to the *Hauptschule* qualification. Pupils who leave a general school after at least nine years of education but for a variety of reasons cannot immediately begin training or a job, or participate in some youth employment scheme, are obliged to attend a special preparatory form of this year of basic vocational training. This is especially intended for youngsters who leave a *Hauptschule* without qualification and was attended by 27,800 in 1986.

10.3.2 *Berufsfachschule* (Full-Time Vocational School)

The fact that these are full-time schools means that they cannot be attended alongside in-firm training. Various institutions are subsumed under the designation of *Berufsfachschule*, differing with regard to conditions of admission, range of training objectives, and length of training. The condition of admission is completion of either *Hauptschule* or *Realschule* (or an educational equivalent) depending on what the type of school sets out to do. Courses last at least one year and at most three years.

The Conference of Ministers of Education regulated full-time vocational schooling in a resolution dated 3. 11. 1971. Three kinds of schools were distinguished there:

1. Schools that lead to a qualification in a recognised trained skill
2. Schools where attendance is credited towards training in recognised skills
3. Schools that lead to conclusion of vocational training requiring attendance at such institutions.

The majority of *Berufsfachschulen* belong to the second type. In its recommendation (14. 10. 1977) on the organisation of basic training at these schools, the Conference provided guidelines for the development of such courses.

The mounting importance of *Berufsfachschulen* is expressed in the great increase in pupils between 1950 and 1982 when numbers more than quadrupled (1950, 88,000; 1960, 125,700; 1970, 182,700; 1980, 325,600; 1982, 356,300). In the meantime numbers have somewhat declined for demographic reasons. In 1986 318,700 pupils attended full-time vocational schooling.

Berufsfachschulen provide both more extended general education and basic vocational training of a specific nature. Schools thus specialise in commerce, technical trades, home economics, tourism, and social welfare. The one-year course complements the dual system since in some trades it is meaningful to leave training to the school during the first year. Vehicle mechanics, for instance, often spend the first year of apprenticeship in such one-year schools. The two-year form provides basic vocational training and leads to an educational qualification comparable to the *Realschule*, concluding with an examination. These schools must be distinguished from the two-year higher *Berufsfachschule* (belonging to the third type), which is for youngsters who have successfully completed secondary education. These institutions offer training for such jobs as: technical assistants working in biology, chemistry, physics, domestic science, commerce, and information science (for schedule see appendices 28 and 29). The two-year *Berufsfachschulen* specialising in child-care train state-recognised child nurses. A similar institution devoted to secretaries with foreign languages was established in Hesse in 1984/85, and by 1987 there were already 25 such schools with around 1,500 pupils.

The Bavarian *Wirtschaftsschule* (commercial school) constitutes a special form. 68 such schools with around 19,000 pupils existed in 1987. This kind of school follows on from classes 6 or 7 at *Hauptschule* and leads in three or four years to the *Realschule* leaving certificate. It furthers general education and mediates basic vocational training in economics and administration.

There are two emphases within courses. In one the focus is on accountancy, organisation of a firm, and data-processing. This prepares for employment in industry and administration. In the second type the stress is on commercial subjects and mathematics, particularly the employment of mathematics in economics and physics. This course thus prepares the way for further schooling extending over four years. This qualification is credited with a year off the training period for commercial employment. Its holders can also move on to a technical secondary school, a transitional class leading to a *Gymnasium* specialising in economics, or – after training – to a higher commercial school or academy.

10.3.3 *Berufsaufbauschule* (Vocational Extension School)

Berufsaufbauschulen (vocational extension schools) were developed in the fifties. Outline agreements by the Conference of Ministers of Education in 1959 and 1965 assured unified organisation of the basic aspects of these institutions – and those were later revised (25. 6. 1982). These accords on education and assessment at such schools state that their objective is to expand and intensify general and vocational training before or during on-the-job instruction. Such courses lead to the qualification for acceptance at *Fachschulen* (technical schools) which is equivalent to completion of *Realschule*. The length of training varies. In the full-time form it takes at least a year, and in the part-time form correspondingly longer. Transitions between the two forms are possible. The precondition for admission is completion of *Hauptschule* (in Bavaria the specially qualified form). Anyone who has completed two years of vocational training is also admitted to the two-year full-time form. Admission to the part-time form is open to anyone who has started on vocational training. The teaching comprises at least 1200 lessons – at least half of which are devoted to German, a foreign language, mathematics, and the natural sciences. Training for the specialised course must entail a minimum of 160 lessons. These vocational extension schools are usually linked with part-time or full-time vocational schools. Provision is made for four specialised courses: technology, economics, domestic science/social welfare, and agriculture. In Bavaria music is another possibility. The choice of course depends on previous vocational experience. There were still over 50,000 pupils in 1965, but numbers were down to around 28,000 in 1975, and to 6,800 in the full-time form and 1,400 in the part-time in 1986. That is partly an outcome of the existence of more possibilities of attaining the *Realschule* qualification today compared with previous decades. Youngsters who complete the course at *Berufsaufbauschulen* are then qualified to enter *Fachoberschulen* (technical secondary schools), *Fachschulen* (technical schools), *Fachakademien* (technical academies), *Berufsoberschulen* (upper vocational schools), and *Kollegs* (sixth-form colleges).

10.3.4 *Fachoberschule* (Technical Secondary School)

The *Fachoberschule* is the most recent type of school in the vocational system, and was created on the basis of the Conference of Ministers of Education outline agreement dated 6. 2. 1969. The current accord dates from 26. 2. 1982. The full-time *Fachoberschule* was attended by 51,300 pupils in 1986, and the part-time form by 24,200. Two-year courses at these schools lead to a qualification for admission to a *Fachhochschule* (polytechnic), mediating general knowledge and abilities, both practical and theoretical. The precondition for admission is conclusion of *Realschule* (or an educational equivalent). *Fachoberschulen* comprise classes 11 and 12, and are organised to specialise in engineering, industry, and in some cases agriculture, social studies, and design. Practical training in the student's specialisation takes place during the 11th class, extending over at least four days a week. Up to half such training can be given in either a firm's or the school's own training workshops. Further practical training takes place in firms. The school lessons accompanying this practical training entail if possible twelve lessons a week, but at least eight. In the 12th class there are 30 compulsory lessons a week in general and specialised subjects at the full-time form. German, social studies, mathematics, the natural sciences, a foreign language, and gymnastics are compulsory, accounting for at least three fifths of obligatory lessons. Applicants who have the *Realschule* qualification (or its equivalent) can be accepted in the second year at *Fachoberschule*. Completion of a course, concluding with an examination, qualifies for admission to polytechnic.

10.3.5 *Berufliches Gymnasium* or *Fachgymnasium* (Vocational Gymnasium)

These schools were not included in the "Terminology applying to organisation of vocational schooling" agreed by the Conference of Ministers of Education on 8. 12. 1975. That may be linked with the fact that these institutions are sometimes viewed as being part of general schooling, and sometimes as part of vocational schooling. Some special types of *Gymnasium* have already been mentioned in section 10.2. *Fachgymnasien* do not exist in all Laender. Terminology, structures, and qualifications are different too. 61,600 pupils attended these schools in 1986 – around 10% of those in the upper level. In Lower Saxony these schools are called specialised *Gymnasien* and lead to the general qualification for university entrance. The Conference of Ministers of Education most recently regulated such vocationally-oriented courses on 11. 4. 1988, assuring reciprocal recognition of Abitur results. In Rhineland-Palatinate the *Fachgymnasium* is integrated in the upper level (classes 11–13) as vocational specialisation in economics or technology. During the introductory phase (class 11) teaching takes place in the class as a whole. During years 12 and 13 it is organised in terms of basic and specialised courses with additional options. Specialisation at economics *Gymnasien* focuses on commerce/accountancy and economics, and the optional subjects include law, management, information studies, and a third foreign language. The specialisations at technical *Gymnasien* entail technology (metallurgy, electro-technics, and construction technology), and a choice can also be made from applied science, information studies, and descriptive geometry. Other subjects accord with what is usually to be found at the upper level of *Gymnasium*. The Abitur there qualifies for general university entrance. Admission is dependent on completion of secondary level I with an average grade of at least 3 (completion of *Realschule*, of the voluntary tenth year at school, of the 10th class at *Gymnasium*, of *Berufsfachschule*, of the *Berufsaufbauschule*, and of level I at the Open University (*Telekolleg*)). Vocational *Gymnasien* in Rhineland-Palatinate are linked with vocational schools. In Schleswig-Holstein there are *Gymnasien* specialising in social economics (with nutrition as a special feature), technology (construction, electronics, mechanical engineering), and economics (theory and policy).

A new way to the Abitur has been opened up in West Berlin with the establishment of *Gymnasium* upper levels in the vocationally-oriented centres of higher studies. The fundamental difference from the usual *Gymnasium* upper levels lies – as with North Rhine-Westphalia's sixth-form colleges – in the fact that these centres do not just offer such general subjects as German, mathematics, and foreign languages. The emphasis is on specialised theoretical and practical instruction in such vocational areas as economics and administration, management, law and information studies, metallurgy, foundations of mechanical engineering and technical drawing, electrotechnology, chemistry, physics, and biology. The qualification for general university admission is gained here.

There has been a technical *Gymnasium* in Hamburg alongside the economics *Gymnasium* since 1986. The range of vocationally-oriented courses at *Gymnasium* – such as economics, technology, and information studies – has also been expanded at the upper level. A *Gymnasium* and a trade school run a course providing a dual qualification – general university admission and qualification as a technical assistant in the chemical industry.

Baden-Württemberg's vocational *Gymnasien* have four main courses: technology, economics, domestic science and nutrition, and agriculture. Specific subjects are emphasised within particular courses, e. g., mechanical engineering, electrical engineering, and practical work in laboratories and workshops at the technical *Gymnasium*. At five schools there is also a six-year extension form of the economics *Gymnasium* from the 7th class for *Hauptschule* pupils. Baden-Württemberg's vocational *Gymnasien* lead to either the general or subject-specific university entrance qualification.

10.3.6 *Fachschule* (Technical School)

The *Fachschule* offers more advanced training for middle-level staff. The preconditions for admission include completion of initial training (apprenticeship) or relevant practical work experience. These schools lead to an additional vocational qualification, enabling the holder to take on functions which do not require polytechnic or university training but cannot usually be fulfilled by people who have learnt on-the-job. Students at *Fachschulen* are aged over 18. In 1986 70,200 pupils attended the full-time form of *Fachschule* and 20,400 the part-time form. The part-time or evening form of such schools can usually be attended alongside a job.

Fachschulen exist for around 60 vocational spheres, and courses take either one or two years. The Conference of Ministers of Education approved an outline agreement on the two-year form on 27. 10. 1980, regulating establishment, structure, training, and examinations in 60 courses. Arrangements have still to be agreed on such courses as domestic science, agriculture, social studies, and healing professions (excluding doctors). The minimum admission requirements are completion of *Hauptschule* and *Berufsschule*, a recognised training course, and two to three years of relevant work experience. Courses are directed towards specific jobs. Passing the final examination qualifies as, for instance, a technician, economist, or optician. In Hesse a two-year course in the technology of environmental protection has been initiated on an experimental basis. Another pilot project at both state schools and private technical schools – both full- and part-time – is devoted to remedial education. Educators, social educationists, and social workers must have two years of work experience before being accepted for this course leading to state recognition as a practitioner of remedial education.

10.3.7 Special Forms of Vocational Schooling (to some extent now part of the university system)

The following forms of vocational school exist in a number of Laender: ***Berufsoberschule*** (upper vocational school, in Bavaria); ***Berufsakademie*** (vocational academy, in Schleswig-Holstein); *Fachakademie* (technical academy, in Bavaria); *Wirtschaftsakademie* (economics academy, in Hamburg); ***Akademie für Wirtschafts- und Sozialwesen, Verwaltungs- und Wirtschaftsakademie*** (academy of economics and social studies, and of administration and economics, in Saarland), and ***Berufskollegs- und Berufsakademien*** (vocational colleges and academies, in Baden-Württemberg).

These academies generally prepare the way for entry into a higher-level career, sometimes leading to an academic and vocational qualification comparable with a college degree. They were attended by a total of 11,200 students in 1986.

The Bavarian upper vocational school, attended by 3,500 pupils in 1987, comprises two years of schooling. This leads to university entrance for a specific course of study. The precondition for admission is completion of both ***Realschule*** and vocational training. Lessons provide general and specialised theoretical training. This type of school is organised in four course specialisations: technology, agriculture, economics, and domestic science and social welfare. Subject-specific university entry can be transformed into the general qualification by taking an additional examination in Latin or French. There are also upper vocational schools in Baden-Württemberg.

Admission to Bavaria's technical academies also requires completion of ***Realschule*** and previous vocational training. The course leads to a final examination for a state-recognised profession. The 77 academies were attended by 10,600 pupils in 1987 – with over half of the students pursuing courses in social work. Training takes at least two and not more than four years, preparing the way for a higher-level career. The possibilities include: optics, building and construction, the performing arts, professions involving foreign languages, church community work, domestic science, remedial education, design in wood, agriculture, medical technology, music, social work, and economics. After successful completion of technical academy, the graduate can in certain circumstances take an additional examination so as to gain subject-specific university entrance.

The precondition for admission to Baden-Württemberg's vocational colleges is completion of *Realschule*. The course takes between one and three years. Technical assistants, for instance, require two years of training, and assistant graphic designers three. A three-year college operating a dual system is a special feature. Course participants spend two days a week at school and work in a firm for three. After three years of training they receive the state-recognised certificate of proficiency. The qualification for admission to a polytechnic can be gained by way of additional lessons during training and an examination. The dual form of vocational college exists for machine technology, building and construction, electrotechnology, and garment technology.

The Baden-Württemberg vocational academies were originally non-university institutions within the tertiary sphere of education. The coming into effect of a Land law (26. 5. 1982) concerned with these academies entailed recognition of their established place in that sphere. Baden-Württemberg had started in 1974 with four pilot-projects which took holders of the Abitur through a graduated course ending with an academic and vocational qualification comparable with that awarded at an institute of higher education. Theoretical and practical phases of training alternate as in the dual system. The student attends the academy, which provides instruction in theory, and also receives in-firm training. The course lasts three years and its basic concept involves providing an alternative to university studies in the vocational sphere. 5,300 students received training in 1984/85. Over 1800 firms and welfare bodies are involved in courses. The training concludes with acquisition of an academy diploma as economist, engineer, or in social work.

The vocational academies in Schleswig-Holstein offer courses in business, information theory with special application to business (a three-year course), and technology with an emphasis on engineering (a four-year course). Training concludes with examinations leading to an academy certificate as economist, specialist in information studies, or industrial engineer.

11. Alternative Forms of Access to University *(Zweiter Bildungsweg)*

It has long been possible in Germany for talented adults to gain admission to university studies even if they did not get the Abitur at school (see section 14.4). This procedure is, however, basically meant for special cases. Since the fifties, new possibilities have been established in both general and vocational schooling, enabling people with a job to gain the *Realschule* qualification and also access to higher education. In the fifties and sixties this "second way" was particularly concerned with the objective of correcting the social selection entailed in the *Gymnasium*. The traditional forms of this "second way" include evening classes at the level of *Realschule* and *Gymnasium*. Vocational extension schools and sixth-form colleges were added in the fifties, and the technical secondary school at the end of the sixties. As the previous section on vocational schooling showed, there now exist a variety of forms of admission to polytechnics and universities by way of such training.

In the sphere of general education, evening forms of the *Hauptschule*, *Realschule*, and *Gymnasium* must first be mentioned. These enable people with jobs to gain the relevant qualifications, but it is particularly difficult because of the double burden involved. In 1986 the evening *Hauptschule* was attended by around 600 people, the evening *Realschule* by 9,800, and the evening *Gymnasium* by 16,900. The Conference of Ministers of Education reached agreement on the evening *Gymnasium* as early as 1957, and that was adapted to current developments in 1970. The 7. 7. 1972 accord on reorganisation of the *Gymnasium* upper level as secondary level II also made necessary the restructuring of the evening *Gymnasium*. That occurred in a Conference resolution dated 21. 6. 1979, revised on 11. 6. 1987.

Training at evening *Gymnasium* is organised as an introductory phase followed by a course system and usually lasts three, or at most four, years. Admission is limited to applicants who are at least 19 and have either completed vocational training or at least three years of regular work. The student must also have a job while studying, except for the final three half-year periods. Applicants who do not have the *Realschule* certificate (or an equivalent) must attend a sixth-month preliminary course. The course system is modelled on the upper level at *Gymnasium* with certain modifications. Evening *Gymnasien* continue to provide an autonomous, alternative possibility of gaining the university entrance qualification. Introduction of the course system demonstrated, however, the danger of students dissipating their energies, so these institutions endeavour to guarantee qualified training by way of basic and specialised courses, concluding with the Abitur. Two specialised subjects and two others are chosen by the student for examination. One must be a language and one must come from the sphere of mathematics and the natural sciences. The grades achieved in the evening *Gymnasium* Abitur are recognised by all Laender in the Federal Republic of Germany.

The *Kolleg* (sixth-form college, formerly the Institute for Attainment of University Admission) is another important institution offering adults an opportunity of getting to university. These colleges have been developed since the fifties, and the ministers of education have several times regulated their activities. Here too adaptation to the reorganised upper level at *Gymnasium* turned out to be necessary. The Conference thus reached agreement on reorganisation of the sixth-form colleges on 21. 6. 1979, and that was amended on 11. 6. 1987. The preconditions for admission are the same as at evening *Gymnasium*. An aptitude test or a preliminary course of at least six months are expressly required. The course generally lasts three, or at most four, years, concluding with the Abitur examination. An introductory phase of two half-year periods is followed by a course system. In 1986 these colleges were attended by 11,700 students. The teaching styles at both evening *Gymnasien* and sixth-form colleges are adapted for adults. Unlike the evening *Gymnasien*, the colleges usually have boarding facilities. Students are not permitted to take employment, and most of them receive state grants.

12. Special Schools

Special schools serve the upbringing and education of children and young people with physical, mental, psychological, or other handicaps preventing them from attending or receiving adequate assistance at general or vocational schools. Organisation of these schools is dependent on the form of handicap and the local conditions. There are schools for children with learning difficulties, the blind and short-sighted, the deaf and hard of hearing, those with speech problems, the physically-, mentally-, and behaviourally-handicapped, and the ill. Each of these different types is an autonomous form of school. The principle that handicapped children are best assisted in institutions exclusively established to meet their needs has prevailed in the organisation of such schools. That principle has, however, been called into question in discussions of educational policy since the start of the seventies.

Special schools look back on a long tradition and often developed out of church initiatives. Even today the churches maintain many special schools – alongside the Laender and the district and local authorities. The Conference of Ministers of Education has devoted intensified attention to special schools since 1960 when it published an "Assessment of the Organisation of Special Schooling". Looking retrospectively at the period of National Socialist rule, this report stated: "The German nation has a historical debt to pay with regard to people deprived as a result of suffering and infirmity. Such people must not be viewed or treated as being less valuable. Germans must once again take seriously the task of making possible a meaningful existence for all children and young people who are unable to attend general schools with profit". The Conference of Ministers of Education has constantly striven to further the public image of special schools. The report may have conceded that community of interests should be cultivated between pupils at both special and general schools, but otherwise advocated the autonomy of special schools and developed the basic principles for reform. The direction was indicated in the Conference's recommendation on the organisation of special schools dated 16. 3. 1972, aiming at unifying and expanding the system. This recommendation states that the task of such schools is "to implement the handicapped child's right to an education and upbringing in accordance with his or her ability and nature". The ministers approved 13 highly detailed recommendations in the context of this reorganisation, testifying to the Laender administrators' unusually intense responsiveness to the question of special schools. The recommendations outline the general and specific educational objectives, teaching in individual subjects, and the organisation of instruction. The number of pupils doubled in the sixties – mainly for demographic reasons (1961, 145,900; 1971, 345,000). The figure rose still further to around 400,000 in 1977/78, and since then has steadily fallen to 265,242 in 1986 – i. e., by around 35%. In 1986 152,499 youngsters attended schools for children with learning difficulties, and a further 112,743 are distributed between the other forms of special school (see appendix 10 and also the Conference of Ministers of Education's "Statistik und Vorausberechnung Nr. 42" ("Statistics and Projections No. 42")). The number of teachers increased between 1960 and 1977 from 6,200 to 37,500, attained a peak in 1981 with 41,365, and since then has been around 40,000 (in 1986, 39,785). The pupil-teacher ratios at special schools considerably improved on the guidelines agreed by the ministers of education in 1972. The fact that the number of teachers remained high despite an enormous drop in pupils meant that the average ratio nationwide could be reduced from 8.7 in 1980 to 6.7 in 1986.

As already mentioned, there has been discussion during the past two decades about the extent to which handicapped and non-disadvantaged children can and should be taught together. Demands were raised – in connection with the establishment of comprehensives – that the planning of special schools for retarded or maladjusted pupils should be dropped so that these children could be integrated in the primary and secondary level I stages at general schools. The Conference of Ministers of Education's recommendation (16. 3. 1972) on the organisation of special schools had little to say about this problem. At that time the ministers thought it unrealistic to issue recommendations on the integration of handicapped children in comprehensives. An October 1973 recommendation by the German Education Council's education commission was, however, in favour of the principle of integration, and suggested that handicapped and non-handicapped children should in future be taught together so far as possible. Isolated teaching of pupils at special schools should – in the Education Council's view – be ended, especially in the case of the educationally backward who constitute by far the largest group of pupils at such schools (almost 80%). Since the start of the eighties numerous pilot projects and research studies testing measures for integration of the handicapped in general schools have been assisted by the federal and Laender authorities. In its recommendations on teaching in schools for the backward (17. 11. 1977), the Conference of Ministers of Education stressed: "Re-integration of pupils from schools for the retarded into primary schools and *Hauptschulen* is to be undertaken in all cases where there is a prospect of successful participation in lessons there". The slight decline over the past decade in the numbers of children with learning difficulties is mainly the outcome of differentiated and individual teaching in the primary schools. Through preventive measures primary schools and *Hauptschulen* are increasingly in a position to help particularly backward pupils so that they do not necessarily have to transfer to special schools. Nevertheless, as previously mentioned, the high number of teachers and low class sizes (around 12 at schools for childen with learning problems and an average of around 8 at other kinds of special school) do offer the basis for intensive instruction.

Not all of the handicapped are dependent on special facilities for the whole of their time at school. Schools for children with speech difficulties are mainly attended by pupils from primary schools. Youngsters are, however, often only sent to schools for the behaviourally disturbed after the age of ten. The situation is different though at schools for the blind, deaf, mentally handicapped, etc. Many special schools, apart from those for children with learning difficulties, are all-day institutions. Attendance at such state facilities is free of charge, and travel costs are refunded. In the case of state-funded boarding schools, parents usually have to make a contribution towards the costs of upkeep. Foreign pupils are treated in exactly the same way as Germans. Political parties, the churches, and various social groupings make a considerable contribution towards assisting handicapped children and young people. Over 100,000 parents and backers are organised in the nationwide "Lebenshilfe" ("Life Help") association, which is the largest parental body in the Federal Republic of Germany.

There exist a number of centrally-situated special schools in cases where only a limited number of children suffer from a particular handicap. The long-established *Gymnasium* for the blind at Marburg is one such instance. In February 1975 the Conference of Ministers of Education approved a recommendation on vocational training for the handicapped and on the establishment of centrally-situated institutions for that purpose. Much has been done since then to open up the way to qualified vocational training for as many handicapped youngsters as possible. Some of these schools are linked with hostels which are subsidised out of public funds. Wherever space and staff permitted several special schools have been amalgamated as remedial educational centres. All special schools base their teaching on the curricula in the primary sphere and in secondary levels I and II – with the exception of schools for children with learning difficulties and the mentally handicapped. Teaching methods depend on the nature of pupils' handicap. The low size of classes is particularly beneficial here.

Handicapped young people also have to attend vocational schools. There are special vocational schools and "workshops for the handicapped" – particularly in larger towns and cities – as well as individual classes at the usual institutions of vocational education. Special state ordinances promote integration of the handicapped in the world of work and assist their chances of advancement.

At present special schools are again undergoing a process of reorientation. Measures for early assistance have been intensified in primary schools, and the earliest possible forms of help turn out to be particularly effective. This is provided in close co-operation with the medical, educational, and psychological services. The discussions about integration have led in recent years to hundreds of special school teachers having taken on the care of handicapped children at normal schools. These specialists offer immediate help in case of need and can also provide special educational support. Joint assistance for handicapped and non-handicapped children does, however, often encounter educational and organisational difficulties, particularly when the handicapped are unable to keep up with their fellows despite additional help. This affects social integration – but where integration is achieved, the non-handicapped derive considerable educational benefit.

13. Private Schools

Education is largely a state system in the Federal Republic but there is no state monopoly of schooling. Over 4,000 private schools with around half a million pupils are also to be found. In 1986 5.8% of the youngsters at general schools and 6.7% at vocational facilities went to private institutions. The fact that private schools are enjoying mounting popularity is partly in response to the large numbers of experiments at state schools. Between 1976 and 1983 the number of pupils at private schools expressed as a percentage of the whole increased from 3.7% to 5.2%. The educational profile of these schools appeals to many parents who want their children to have more individual attention than they see provided in local state schools. Private schools involve a variety of educational concepts. One in ten youngsters at *Gymnasium* level attends a private school, and this upper level accounts for the greatest number of private pupils (46. 5%) receiving a general education.

The overwhelming majority of private schools are church-maintained. Over the past fifty years and more, the Waldorf schools and *Landeserziehungsheime* (private boarding schools) have also gained a reputation for themselves. Mention should be made too of the schools for national minorities (such as the Danes in the north of Schleswig-Holstein) and foreigners (e.g. Greeks and Japanese). In addition there are a considerable number of business schools and institutions providing training for the caring professions. Throughout the history of German education private schools have often served as pace-makers – as, for instance, in education for girls, vocational training, and facilities for the handicapped. State-recognised private schools award the same qualifications as their state counterparts. Apart from a few exceptions, private schools are not "elite schools", either in terms of their educational concept or of the pupils who attend them.

As tables 11 and 12 in the appendix show, the number of pupils at private schools offering a general education doubled between 1960 and 1980, attained a peak of 424,743 in 1981, and has since declined slightly to 403,607 in 1986. The total of youngsters at private vocational schools did not increase quite so much. The figure for 1986 was 127,639. In that year there were 348 private primary schools and *Hauptschulen*, 506 special schools, 252 *Realschulen*, 330 *Gymnasien*, 96 comprehensives, 96 evening schools and colleges, and 1,071 vocational schools including 449 full-time institutions and 286 technical schools. 912 medical schools, training male and female nurses, should also be mentioned.

The high constitutional status enjoyed by privately-backed schools in the Federal Republic also receives expression in the fact that article 7 (paragraphs 4 and 5) of the Basic Law guarantees the right to establish private schools. Approval is made dependent on these schools attaining equivalent standards to state schools in terms of teaching objectives, facilities, and teachers' qualifications, and on their non-promotion of segregation of pupils from rich families. Teachers' economic and legal status must also be sufficiently assured. Article 1 (para. 7) of the Basic Law states that the entire school system – i. e. inclusive of private schooling – is subject to state supervision. That is why the term "free schools" (as opposed to "private schools") which established itself in recent years is not completely accurate since even such institutions are not free of the state. They operate under state supervision and require authorisation by the state. The details have been regulated in almost all the Laender by special laws on private schools. Article 67 of the Bavarian Education Law of 29. 2. 1988, for instance, defines the task of such schools as follows: "Private schools serve to complete and enhance the state system. Subject to the law, they enjoy freedom of choice with regard to educational, religious, or ideological inclinations, methods of teaching and education, subject-matter, and forms of organisation". Private schools are thus at liberty to develop and try out their own educational concepts. At the heart of that freedom is that parents have the possibility of sending their children to non-state schools if they do not approve of the organisation of, or what is taught at, public institutions.

A distinction is made in school law between "substitute" and "complementary" schools. Substitute schools are private institutions whose educational objectives accord with those of existing or planned state schools. Most private schools are of that nature. Complementary schools do not fulfil that requirement, but such an institution can receive state recognition (subject to withdrawal) if it provides training for a specific profession, offers instruction in accordance with a curriculum approved by the relevant ministry of education, and holds the final examination in accordance with ministerial regulations and under state supervision.

The fees usually paid for attending private school cover only a small part of the overall costs involved. Private substitute schools can apply for state assistance in accordance with specific Laender regulations if they operate for the common good and relieve the state system. Laender subsidies for private schools take into account the costs incurred by state schools but non-state institutions receive only a percentage of that, varying from Land to Land. Private schools are thus less of a burden on Land budgets than their state counterparts. In recent years subsidies to such schools were also cut to some extent because of the difficult financial situation facing the Laender. Parents and maintaining bodies then raised constitutional objections. The short-fall between state subsidies and the actual costs is usually made good by the churches in the case of their schools, but elsewhere school fees have to serve that function. The Laender do in fact put up considerable sums of money for substitute schools, and these can amount to over 90% of the current costs. The new Bavarian school-financing law (30. 7. 1987) improved state assistance for the Land's over 800 private schools by more than 50 million DM annually. Around a seventh of the Bavarian Ministry of Education and Culture's total budget benefits non-state schools – with 987 million DM in 1987. The explosive nature of subsidies within educational policy is demonstrated by the dispute over a change to the North Rhine-Westphalia law regulating the financing of substitute schools. After a 1981 change in the law, backed by the SPD majoritiy but vehemently opposed by those affected, the CDU opposition turned to the Land's constitutional court. The key issue in the amendment had been a reduction of state subsidies for substitute schools from 94% to 90% of the costs normally incurred by state schools. The constitutional court later (3. 1. 1983) declared that the disputed change in the financing of private and church schools was null and void. At the start of 1988 there were fierce protests when CDU-governed Rhineland-Palatinate also wanted to reduce subsidies for private schools by 3 million DM yearly at a time of budgetary cuts.

A decision (8. 4. 1987) by the federal constitutional court states that the Laender are obliged to guarantee at least the minimum necessary for the existence of private schools. They are, however, free to choose between direct financial assistance and alternative contributions towards staffing and material aid. The state – declared the judgement – should not content itself with merely tolerating the activities of private schools. Instead it must give them an opportunity for adequate implementation of their particular views. Such self- determination is, however, not possible without state support. The Federal Association of German Private Schools has thus demanded equality of financial status betwen state and non-state schools. 280 maintaining bodies and around 1,000 schools belong to this association, and 80% of those institutions are vocational schools.

Three fifths of all private schools are maintained by the Catholic church, and Catholic schools have largely been able to maintain their position during the past decade with only a slight drop in numbers. In 1978 there were 1,142 Catholic schools with a total of 296,800 pupils – compared with 1,123 schools and 286,400 pupils ten years later. In 1988 there were 88 primary schools and *Hauptschulen*, 5 orientation levels, 129 *Realschulen*, 190 *Gymnasien*, 7 comprehensives, 44 education or school centres, 181 special schools, 216 vocational schools, and 263 nursing schools. Most of these were in North Rhine-Westphalia (353), Bavaria (298), Baden-Württemberg (149), and Rhineland-Palatinate (114).

Catholics view these institutions as being a part of church life rather than "private" schools. This is not the place to outline the great Catholic tradition of schooling and its diversity. Mention can merely be made of St. Blasien and Ettal as Jesuit and Benedictine monastery schools. Today such schools are by no means attended only by Catholic pupils. The percentage of non-Catholics is often between 10 and 20%. In 1986 there existed around 500 boarding schools and school homes with places for 46,000 boys and girls. The independent Working Group for Catholic Schools and the Bonn-based German Bishops Conference's education office foster co-operation between Catholic schools.

Protestant involvement in private schools is equally diverse but numerically much weaker. That is historically conditioned and explicable in terms of Protestantism's association with state schooling. A large part of the state school system in fact derives from church initiatives in Protestant areas. In 1986 there existed 100 general schools with 42,000 pupils and 63 school homes with some 6,900 places, 223 schools for the handicapped usually inclusive of boarding facilities, 140 vocational schools with 7,700 pupils, and 184 nursing schools with a total of 9,000 places. Decisions in 1958, 1971, and 1978 by the synod of Protestant churches in Germany were devoted to educational objectives. In 1971 the Protestant church held very much the same views as the German Education Council at that time.

Protestant schools receive support from the churches themselves, the Protestant social welfare organisation, and the Christian Youth Village Association. The majority of independent sources of support are grouped in the Association of Protestant School Federations which is linked with the church's social welfare activities. The Christian Youth Village Association and its 110 centres for the provision of education and training or youth villages has contact with some 78,000 young people annually, and maintains 7 schools with a total of around 4,300 pupils – the Christopherus youth village schools, which are state-recognised *Gymnasien* and *Realschulen* with accommodation for the pupils. Each of these institutions serves an autonomous educational function. The Brunswick school, for instance, tests ways of furthering the highly talented in classes 10–13. Other schools develop forms of therapy for psychologically engendered disruptions of learning and performance, look after young diabetics, assist great musical talents, or provide instruction for top sportsmen from the German Skiing and Tobogganing Association. Refugees from crisis areas and late emigrants from Poland and the USSR receive help in two other schools. These youth village schools thus attempt to provide a practical response to current educational problems.

The Protestant theological seminaries at Blaubeuren and Maulbronn in Württemberg, and the "Zur Pforte" school established at Meinerzhagen in the sixties, perpetuating the humanist tradition of the "Schulpforta" near Naumburg, one of the three celebrated Saxon princely schools, exemplify the great Protestant educational tradition.

Educational reformism exerted an influence on the Free Waldorf Schools, the *Landerziehungsheime* (private boarding schools), the Montessori schools, and the Peter Petersen schools (6 in all, including Cologne and Frankfurt). The 30 or so Montessori schools are partly Catholic-backed and partly state institutions. In 1986 90 Waldorf schools with a total of 41,700 pupils were in existence. Rudolf Steiner (1861–1925), editor of Goethe's scientific writings and a teacher at a workers' school in Berlin, developed anthroposophical concepts of education. Waldorf pedagogics differ fundamentally from state schools with regard to the teacher's role, the curriculum, the methods employed, the nature of reports, and the co-operation of parents, which is greatly emphasised. The great majority of pupils attend these schools without having had any previous connection with anthroposophy. Ideological motives play little part in parents' decision to send their children to Waldorf schools. They are basically attracted by the educational climate at the schools, which stress education in the arts. These schools are organised in accordance with local circumstances and differ in some respects. They generally have twelve co-educational classes. An additional 13th class is devoted to preparation for the Abitur. A kindergarten is attached to many of these schools, and sometimes also a special class for pupils with learning difficulties. All pupils are taught in age-groups and stay together – without any special selection or repetition of a year – until the end of the twelfth class.

Reports involve brief evaluations rather than grades. Another element in Waldorf pedagogics entails an emphasis on arts and crafts in all aspects of teaching. Openness to new developments is, for instance, demonstrated by the "Practical development of upper level courses providing dual qualifications" pilot project at the Hibernia school at Wanne-Eikel, which sparked off similar experiments in the state system. The German Steiner schools are part of the international Waldorf movement. Autonomous teacher seminaries exist in Stuttgart, Mannheim, and Witten.

The *Landerziehungsheime* (private boarding schools) arose towards the end of the 19th century within a reform movement critical of educational and cultural policy. Many reforms in the state school system derive from that movement's initiatives. The Odenwald school at Oberhambach/Bergstraße, which has been expanded as an integrated comprehensive, thus provided important impulses towards reform of the upper level at *Gymnasium*. The 17 private boarding schools are at present attended by around 4,000 pupils. Their number includes such long-established boarding schools as Schloß Salem, Schondorf, and the Hermann Lietz schools. Accommodation in boarding schools is expensive, but private schools strive to avoid creating the impression that they are institutions for "the poor children of rich parents". The private boarding schools endeavour – for educational reasons – to achieve a socially balanced mix of pupils, offering scholarships for the children of less well-off parents.

A number of "alternative" private schools arose out of the sixties and seventies debates on educational reform. They too are a token of criticism of the state system of education. At present there exist 12 such schools – five of them in Hesse. Some of them are influenced by the Green Party's ideas about education.

14. General University Admission

The first tentative Prussian regulations on university admission date back 200 years, so it is a German tradition that the Abitur and other entrance examinations are part of the school rather than the university system. The requirements are determined by the Laender ministries of education and the Conference of Ministers of Education. The Conference has thus reached several agreements on reciprocal recognition of grades enabling university entrance – most recently on 11. 4. 1988. The first such accord between the former states in the Imperial Reich was concluded as early as 1874 and later frequently amended – in 1909, 1922, 1931, and 1954. The latest currently valid regulation is the agreement dated 25. 6. 1982 as revised on 17. 1. 1984 in conjunction with the amended accord on upper levels (11. 4. 1988). Admission to university has therefore been the object of highly differentiated arrangements between the federal states for over a hundred years now. Basic issues pertaining to entrance requirements are not, however, decided by ministries of education without previous consultation with universities and colleges. In recent decades the ministers' decisions were preceded by intensive consultations with the West German Rectors' Conference, grouping the heads of institutes of higher education. Time and again there has been public discussion of whether would-be students have been adequately prepared and what could be done to improve that situation if need be. That has also been a constant theme throughout the history of German education.

During the sixties university expansion did not keep pace with the increase in the number of *Gymnasien*. The outcome was that places were not always immediately available in the courses people wanted to study. Up till that time almost every holder of the Abitur wanted to go to university. At the start of the seventies, that was still the case for around 90% of those qualified to do so. The short-fall in university places, forecasts of surplus capacity of graduates in the eighties, the threat of unemployment among degree-holders, and mounting demand for holders of the Abitur in business and administration resulted, however, in an ongoing decline within a few years of the number of would-be students to 72.7% in 1977 and 61.4% in 1987. Almost a quarter of those starting on their studies today have previously completed vocational training. In-firm training is thus not viewed as an alternative to studies, but rather as an initial practice-oriented aspect of training. On the other hand, the polytechnics are not just attracting people whose final school qualification limits them to that. Around half of those starting out on their studies at polytechnics are qualified to go to university. In 1986 291,400 pupils at general and vocational schools qualified for higher education – 224,500 at a university and 66,800 at a polytechnic. Girls accounted for an average of 50.1%. The number of holders of the Abitur, qualifying for both university and polytechnic, among their age-group amounted to a nationwide average of 23.7% in 1986 – as compared to 4% in 1954 and 7.4% in 1963. Those few figures indicate the speed of developments.

Every holder of the Abitur in Germany used to be able to study whatever subject he or she wanted if the specific preconditions were fulfilled – except during exceptional times such as war and post-war periods. The enormous increase in numbers of Abitur-holders led, however, at the start of the seventies to introduction of nationwide restrictions on admission to certain courses – despite intensified expansion of the university system. Regulations for admission to these subjects were drawn up by the Conference of Ministers on 12. 3. 1970. The award of study-places was regulated by a state agreement concluded by the Laender on 20. 10. 1972. This provided the first unified regulation of application and admission procedures for university studies in courses where restrictions existed at all or a majority of colleges. The Laender established a central admissions board at Dortmund. The board ascertains – on the basis of the applicant's papers and the relevant admission regulations – where he or she can be accepted and assigns a place to him or her. With this agreement the Laender complied with a judgement (18. 7. 1972) of the federal constitutional court, demanding that in situations of restricted access to courses of study decisions about admission should be made centrally in accordance with unified criteria, providing for full utilisation of training capacity. The federal university outline law, which came into force on 30. 1. 1976, changed the law affecting admission in several respects. The 1972 regulations had to be adapted to the university outline law. The Conference of Ministers of Education then drew up a new draft state agreement which the Laender prime ministers signed on 23. 6. 1978. That also took into account judgements by the federal constitutional court including that of 8. 2. 1977 – laying down that applicants, who have had to put up with an excessively long wait under the previous regulations, must be accorded an opportunity of immediate admission. The new accord thus also opened up the possibility of offering places on the basis of a selection procedure. On 30. 3. 1979 the Conference of Ministers of Education approved a resolution on the introduction of tests in the reorganisation of admission to university medical studies. These tests were utilised for the first time in the 1980/81 winter semester, followed by a three-year trial period. The outcome led the ministers of education to reorganise (29/30. 9. 1983) the procedure regulating admission to medical studies, and that has been in force since the 1986/87 winter semester. 45% of all study-places are allocated by way of a combination of Abitur grades and testing, 10% on the basis of the test results alone, and the rest in accordance with highly differentiated procedures (interviews, length of time already waited, etc).

This is not the place for detailed description of the complicated procedure which the state agreement of 23. 6. 1978 lays down for allocating study-places. The applicant's qualifications and the time that has passed since gaining the qualification for a particular course of study play an important part. A distinction must be made between three procedures: the distribution procedure, and the general and special selection procedures. In the 1987/88 winter semester, the faculties of business management, information studies, law, and economics were affected by the general distribution procedure. The number of applicants may not have exceeded the total number of study-places available, but individual universities were unable to meet the demand. Every applicant was guaranteed a place but not necessarily at the preferred university.

The faculties of agriculture, architecture, biology, forestry, domestic technology and nutrition, chemistry and food technology, pharmacy, and psychology – and in North Rhine-Westphalia sport, political economics, and business pedagogics – were affected by the general selection procedure at the same time. After quotas for special groups (foreigners, applicants for a second course of studies, and cases of hardship) had been dealt with, the study-places still available were allocated: 60% in terms of qualifications and 40% in accordance with the time already spent waiting for a place. The degree of qualification is determined by average grades in the examination qualifying for university admission.

The special selection procedure applies to medical courses (medicine, veterinary studies, dentistry). As already mentioned, the special characteristic of this procedure is a test which all applicants must take. Exceptions are, however, made for foreigners and those applying for a second course of studies. The test, held once a year, must be taken before applying for a university place. Only when both Abitur grades and the test result are available can an application be submitted. Selection involves the following quotas:

- 10% of the study-places go to special groups of applicants (cases of hardship, foreigners, etc)
- around 10% of the places go to applicants with the best test results
- around 45% are awarded on the basis of a combination of Abitur grades and the test result
- around 20% are allocated in terms of the time already spent waiting for a university place
- around 15% are allocated by the universities on the basis of an interview. Those summoned for interview are drawn by lot from among applicants who did not gain a place in the other quotas. The success rate among these interviews is set at one in three.

Apart from these nationwide restrictions on admission, there are also a number of procedures at individual universities. Information is available in the "Studien- und Berufswahl" ("Choosing Studies and Profession") brochure (17th edition, 1987) jointly published by the Federal-Laender Commission for Educational Planning and the Advancement of Research and the Federal Labour Office.

Distinctions must be made between the different qualifications enabling access to higher education:
- *allgemeine Hochschulreife* (the general qualification for university entrance)
- *fachgebundene Hochschulreife* (the qualification for a specific university course)
- *Fachhochschulreife* (the qualification for attending a polytechnic).

14.1 *Allgemeine Hochschulreife* or *Abitur* (General Qualification for University Admission)

This qualification opens the way to all courses at all universities and institutes of higher learning. Art, music, and sports faculties also demand demonstration of ability in that particular subject – often in the form of an aptitude test. Technical courses stipulate several months of vocationally relevant practical work, usually before studies get under way. In Bavaria, Hesse, and Rhineland-Palatinate, anyone who has successfully completed the basic course at a polytechnic can be admitted to specific university courses despite not having taken the general Abitur.

The qualification for university entrance is generally gained at *Gymnasium* through the Abitur, concluding 13 years of schooling. Similar qualifications can be gained at evening *Gymnasien* and sixth-form colleges. The Abitur examination at *Gymnasium* consists of written and oral sections, and also involves practicals in the case of such subjects as physical training, music, art, and the natural sciences. The pupil is examined in four subjects. These include two specialised subjects plus one more, involving written and sometimes also oral assessments. The fourth subject is only examined orally. Either German or a foreign language or mathematics must be among the main subjects – whereby the pupil must already have taken any such foreign language at secondary level I. A subject can only be offered for examination if it accords with the "Unified Abitur Regulations" drawn up by the Conference of Ministers of Education, and with the approved curriculum for classes 11–13. The four subjects examined must cover the three obligatory categories: languages, literature, and arts; the social sciences; and mathematics, the natural sciences, and technology. Religion or sport can also be offered for examination. The oral examination involves a science or arts subject – of the pupil's own choice – which was not previously the subject of written examination. The pupil's achievements in general and specialised courses in classes 12 and 13 and his performance in the Abitur examination jointly provide the basis for assessing his readiness for university studies. The overall qualification involves single weighting for the 22 basic courses, double weighting for the 6 specialised courses, and quadruple weighting for the 4 subjects examined for the Abitur. The specialised courses and the final examination were thus upgraded in the revision of the overall qualification agreed by the Conference of Ministers of Education on 4. 12. 1987 and confirmed on 11. 4. 1988. A total of 840 points are attainable: 330 in basic courses, 210 in specialised subjects, and 300 in the Abitur examination. The new ruling – deviating from the agreement of 7. 7. 1972 – is that a pupil must get at least 110 points in basic courses, at least 70 in the specialised subjects, and at least 100 in the final examination. At least 280 points are therefore needed in order to qualify for university entrance.

Reciprocal recognition of Abitur grades in the vocationally oriented courses at vocational *Gymnasien* and in courses leading to dual qualifications was also regulated by the ministers of education on 4. 12. 1987 and 11. 4. 1988 in agreements on unified implementation of reforms in the *Gymnasium* upper level.

14.2 *Fachgebundene Hochschulreife* (Specialised Qualification for University Admission)

Extension forms of *Gymnasium*, leading to qualification for studying a specific subject at university, existed in most Laender until into the seventies. That qualification could be extended to general admission to university by taking an additional examination in a second foreign language. During the past decade and a half such *Gymnasien* have increasingly adapted to the Conference of Minister of Education's regulations concerning the upper level. As far as can be told, qualification tied to a specific subject at university is no longer usual in the Laender (see section 10.3.5). The "North Rhine-Westphalia universal qualification" is a special case, qualifying for studies at an institute of higher education there in courses without any selection procedure entailing quotas for the Laender. In other words, this qualification is not valid for courses where there are restrictions on admission. This form of qualification is gained by pupils who passed the Abitur without having participated in instruction in a second foreign language at either levels 7–10 or 11–13. It is not recognised by the other Laender. This is basically a specialised qualification for university entrance which only applies in North Rhine-Westphalia.

14.3 *Fachhochschulreife* (Qualification for *Fachhochschule* Admission)

This qualifies for studies at *Fachhochschulen* (degree-granting colleges of higher education) and corresponding courses at comprehensive universities. The qualification is usually gained through the final examination at technical secondary school (see section 10.3.4). It involves a written examination in four subjects (German, mathematics, a foreign language, plus one other subject). There are also orals in the subjects of the written examination and in an additional vocationally-oriented subject. This qualification can also be gained at some two-year full-time vocational schools or at Baden- Württemberg's vocational colleges. The Conference of Ministers of Education reached agreement on special educational possibilities qualifying for entrance to *Fachhochschulen* on 18. 9. 1981 (amended on 24. 7. 1987). There also exists an opportunity of gaining this qualification without attending school, by taking an external examination. Special aptitude in the particular subject must be proven for art or design courses at *Fachhochschulen*. In some cases preliminary practical studies, extending over several months, are a condition of acceptance at a *Fachhochschule*.

14.4 The Examination for Admission of Particularly Gifted Persons in Employment to Higher Education

Ever since the twenties, applicants who have outstanding ability in a particular sphere but lack the Abitur or polytechnic qualification can be admitted to higher education by way of a special examination procedure. The Conference of Ministers of Education has several times regulated this – most recently in the 6. 4. 1987 amendment of the 27/28. 5. 1982 resolution. Applicants with a job, qualified by ability, personality, and previous training for university education but lacking the general qualification, can take a special examination if they have acquired relevant knowledge and abilities after some years at work. Such people are relieved of having to pursue schooling or take the Abitur. They must be aged between 25 and 40. The examination must be taken in the Land where the applicant is mainly resident. Applicants who have already attempted but twice failed to pass the normal Abitur are not admitted to the examination. The evaluation is both written and oral. Further details are contained in the previously mentioned agreement. Understandably, only a few people undertake this way to university studies.

15. Tertiary Level – The Higher Education System

If anyone in Germany talks about our universities, the name Wilhelm von Humboldt is mentioned no later than the second sentence. Even today the Friedrich Wilhelm University he helped establish at Berlin in 1810 inspires educators. Thomas Nipperdey recently justly stressed: "The Prussian university was one of Prussia's few contributions to world history whose status remains undisputed up to the present day. Berlin university became the prototype for the modern university, from Baltimore to Tokyo to Jerusalem, even though only remnants of this institution have survived in Germany for some time now". And then the laments get under way. Many words are devoted to the decline in standards and "the distress of the German universities". That is also an ongoing theme within the history of German education. Scholarship and research pursued on a mass scale can hardly be compared with what from today's perspective were the comparatively idyllic and "small" leading German universities of that time – Berlin, Leipzig, Munich, or Heidelberg.

In recent years university jubilees have renewed awareness of the importance of German universities within the history of European education. In 1977 Tübingen University celebrated its 500th anniversary, followed by Heidelberg in 1986. A year later Cologne marked 600 years of existence. Television transmissions of festivities, conferences and congresses, and a wide range of books on university history met with general public interest. For earlier generations of graduates such a reiteration of their own university traditions was something taken for granted, but at present a successful celebration is an educational and political event. The fact that even today university jubilees can be overshadowed by disputes was demonstrated in 1987 during Göttingen's 250th anniversary celebrations, which had to be called off because of student protests against Lower Saxony's university policy.

Denunciation and ridiculing of this tradition started about two decades ago. At times the universities were profoundly shaken. The students nevertheless rightly drew attention to the universities' failure during the period of Nazi rule. People talked about "the second wave of reeducation". All the same, this "surmounting of the past" contributed little to the solution of urgent contemporary university problems. Serious disturbances, occupations of institutes, and disruptions of teaching took place, particularly in 1967/68.

There were personal attacks against professors and strikes. The slogan on Hamburg students' demonstration banners hit the headlines: "A thousand years of mustiness beneath the gowns". The charge that university teachers were against reforms was unjustified, revealing those students' total ignorance of the facts. The general public, however, took the slogan at face value.

Reforms in the initial post-war period included endeavours at establishing broad general studies. The German Students' Association made a lasting contribution by assisting the construction of student halls of residence. Regular surveys of students' social circumstances led to recognition of the necessity of general help by way of grants and loans. The general opening up of access to studies for people from less well-off sections of the population could only be effectively implemented over the longer term through supporting social measures. That occurred on a larger scale only at a relatively late stage. Student assistance on the Honnef model began on 1. 7. 1957. 50% of the funds were provided by the federal authorities and 50% by the Laender. Since 1971 Bonn has taken on total responsibility, following the CDU/CSU-SPD Grand Coalition's agreement on a change in the Basic Law. The SPD/FDP government then introduced a 1971 law regulating assistance for education (Bafög) – one of the lasting achievements of the Kiesinger-Brandt-Scheel government. That law has constantly been adapted to economic developments in numerous amendments. Table 16 in the appendix supplies information about students' social backgrounds.

Universities between 1933 and 1945

German universities enjoyed a world-wide reputation until the time of the Weimar Republic, but then the period of Nazi rule with the persecution, expulsion, and exodus of Jewish and democratic scholars brought the nadir of their stature. Today, at a time of worldwide research links, it is scarcely possible to conceive the additional setback entailed in being almost completely cut off from international contacts for many years. The Reich Ministry of Science, Education, and Popular Enlightenment often intervened rigorously in universities' sphere of self-administration at that time. The "Führer principle" replaced academic self-administration, and centralised party politics the universities' liberal tradition, which could at most survive in unnoticed corners. Such celebrated professors as Karl Jaspers, Theodor Litt, and Gustav Radbruch were removed from their posts, forbidden to lecture, and forced into "inner emigration". Fritz Ernst, the Heidelberg historian, could "never forget the shock of professors from the older generation with a great scholarly reputation submitting relatively easily to National Socialist demands and linguistic usage". Courageous protest, as expressed by the "White Rose" student protest group in a hopeless situation at Munich university in 1943 after Stalingrad, was rare. Professor of philosophy Kurt Huber, the Scholls, and their circle of friends gave a sign – and their lives – on behalf of truth and freedom in the struggle against Hitler's dictatorship.

Reconstruction after 1945

The reconstruction after 1945 of universities largely destroyed during the war was a great achievement on the part of these self-administered institutions and the Laender. Strongly Nazi university teachers were dismissed. University reforms got under way even amid the ruins. Space only permits mention here of the celebrated 1948 "Blue Report". This "Assessment of University Reform" was carried out by a studies commission appointed by the military governor of the British zone of occupation, consisting of German, British, and Swiss scholars and representatives of the churches and trade unions, under the chairmanship of a unionist. An attempt was made at outlining a new status for German universities within intellectual life, state, and society. University autonomy was to be strengthened and a middle-level of lecturers and professors created. Unless the numbers of long-overburdened teachers were expanded, universities could not be opened up to all levels of the population – and nor could students be given the necessary human guidance and assistance. "It is impossible to avoid fresh political catastrophes if graduates do not learn to fulfil their human duty within the body of the people. A university that does not derive its energies from this task must expect to be confronted one day with blind upheaval rather than objective proposals for reform".

The German university was in fact confronted by such an upheaval twenty years later. Two tendencies were dangerously superimposed at that time: enormous expansion and democratisation. The universities had been generously expanded since the start of the sixties, following the trend-setting initiatives of the Science Council (see section 3) established in 1957. A start was made on setting up numerous new universites. The speed of expansion led, however, to a structural and organisational crisis. The slogans of a political ground-swell, accompanying the expansion, called for dismantling of the professorial university and democratisation of the system.

In the 1948 "Blue Report" the international commission testified that "the German universities embody an old and basically sound tradition". The task of reform was then said to involve devoting the healthy core of this tradition to service of contemporary needs, but the "group university" endowed junior lecturers and students with rights unprecedented in Germany or abroad. The traditional German "professorial university" – where full professors had a largely autonomous right of decision over research, teaching, and appointments provided these did not infringe the law of the land – was succeeded by the "Group University", rushed through in a series of often ill-founded politicial decisions by Laender parliaments. All the groups at work in universities – professors, lecturers, other staff, and students – thus became involved in decision-making, with variations from Land to Land. Another far-reaching structural innovation involved the dissolution of the long-established faculties. They were replaced by departments based on scholarly disciplines, largely following the Anglo-Saxon model.

A large number of neo-Marxist university groups played a considerable part in the wave of university reforms, particularly the German Socialist Students' Federation. Other proposals for reform came from the Association of German Students and the Federal Conference of Junior Lecturers, linking middle-level academics who later merged with the Education and Science Trade Union. The universities and politicians felt largely helpless and unsure. Debates on university policy in Land parliaments showed – as Prof. Dr. Walter Rüegg, then rector of Frankfurt university stated – "to what a frightening extent . . . the university has become remote from the public". Reasonable guidelines – such as the Conference of Ministers of Education's April 1968 proposals for modernisation of the university law and structural reorganisation of the system – did not take, politically. The call for federal responsibility and unified regulations became ever louder. The fact that the Grand Coalition of CDU/CSU and SPD in 1969 accorded the federal authorities outline powers for regulation of the university system (see section 2.2ff) was of far-reaching significance. After six years of difficult negotiations the university outline law was passed on 26. 1. 1976. This was based on evaluation of a diversity of experience within previous reforms. A critical role was played by a federal constitutional court judgement (29. 5. 1973) according precedence to professors in preparations for making high-level appointments and in research. The university outline law, which will be considered in greater detail later, contains general regulations, while the Laender are responsible for detailed measures. The Laender had until 1979 to adapt their university laws to the provisions of the federal law.

Wolfgang Seel, then chancellor of the Ruhr university at Bochum, described the situation at the end of the seventies as follows: "The image of the university has essentially changed as a result of development of the mass university. In addition there is a politicisation and radicalisation, which basically comes from outside, that led – together with the principle of co-determination – to a situation where the foundations of freedom of teaching and research could be threatened and endangered by politicised minorities . . . Co-determination . . . led . . . to the Group University, which institutionalised and thereby intensified conflict, resulting in politically radical minorities getting into committees where parity prevailed. The main outcome was and is a surplus of frustrating committee work". In 1987 Franz Letzelter, the former secretary-general of the German Education Council and chancellor of the Saarland university, summarised developments: "It is unnecessary to say that politicisation went hand-in-hand with group-thinking. Understanding of what was at issue was no longer decisive, but instead coalitions between political groups . . . Political antinomies in university issues only calmed down after the two judgements by the constitutional court, and the economic and financial slump that started in 1974/75 . . . All that made it possible to reintroduce reality into discussions".

The *Hochschulrahmengesetz* (University Outline Law)

The 1976 university outline law is something new in the history of German education. It is true that the 1919 Weimar constitution (in article 10, paragraph 2) accorded the Reich powers of basic legislation over the university system, but these were not used – and with good reason. Experiences to date with the university outline law also provide occasion for scepticism. This law contains regulations about the tasks of a university, admission procedure, staffing, organisation and administration, planning, and state recognition of facilities and qualifications. Basic principles and regulations of procedure within a comprehensive reform of studies were thus established. These were meant to lead to reorganisation of the contents of studies and shortening of the excessive time spent at university. At the heart of the law are directives on the re-ordering of studies and examinations. The objective is that courses of study should be completed within fixed periods, which should only exceed four years in exceptional cases. The content of studies should be streamlined and clearly organised so that students can in future adhere to the stipulated time-limits. Detailed regulations and course structures were devised for that purpose, orienting students about the levels of performance demanded in final examinations. The university outline law has not, however, as yet achieved any far-reaching tightening up and shortening of studies.

The law also establishes degrees of participation of all university members in the most important administrative organs (council, senate, faculty committee). Professors thus have a majority in bodies with direct powers of decision over issues of scholarly relevance. The constitution prescribed entails a full-time executive (university president) elected for at least four years so as to ensure more effective self-administration. That regulation replaced the traditional German system of an annual change of rector, which can in future only be maintained at smaller universities. A chancellor acts as head of the university administration.

The Laender had to adapt their university laws to the federal outline law by the end of the seventies. Since then there have been three amendments of that law. The third such revision, introduced by the CDU/CSU-FDP coalition on 14. 11. 1985, dropped the comprehensive university as the envisaged unified organisational model, granted universities greater freedom in the autonomous organisation of their courses, added the principle of subject-representation to the group-principle, increased university teachers' responsibility, and reorganised the staffing structure among middle-level academics. The coalition viewed the amendment as correcting misguided developments. The currently valid version of the university outline law dates from 9. 4. 1987.

Current Developments

The third law changing federal legislation on salaries for civil servants, passed at the end of 1986, led to a number of important new regulations with regard to university staffing structures. All senior teachers in institutes of higher education had been designated "Professor" under the previously valid regulations. On 29. 6. 1983 the federal constitutional court declared that to be irreconcilable with the Basic Law. The new official titles are "university professor", "college professor", and "art college professor". Professors at polytechnics retain the title of "professor".

In September 1985 the federal government presented a comprehensive report on university policy to the Bonn parliament, and this was then extensively discussed. Parliament responded on 10. 12. 1986 as follows: 1. It stressed the necessity of reducing the excessively long periods devoted to studies in many courses at present, particularly at university. 2. It welcomed ideas about systematic expansion of post-graduate courses. 3. It approved the federal government's intention that institutes of higher education should in future play a greater part in the selection of first-year students. 4. It supported all measures for intensification of relations with other countries. 5. It expected that the federal government would do everything possible to overcome the disadvantages affecting women scholars in higher education. Fundamental support was expressed for special measures of assistance for increasing the number of up-and-coming female scholars in this sphere. In brief, topical objectives, which will determine university policy over the next few years.

The federal authorities and the Laender have promoted numerous pilot projects within higher education on the basis of the outline agreement (7. 5. 1971) on co-ordinated preparation, implementation, and scholarly assessment of such endeavours. These mainly serve the reform of study-courses, the improvement of efficiency in teaching and studies, reduction of the time spent on studies, the development of post-graduate courses, improvement of opportunities for foreign students (particularly from developing countries), and "Open University"-style courses.

The decline in numbers of students predicted for years has not as yet occurred. Such forecasts have already led to a debate about whether a number of institutes of higher education will have to be completely or partly closed in the nineties. Even if the number of students did fall, it is questionable what the consequences would be for individual universities. It is hardly to be anticipated that great numbers of universities will be shut down just as they sprang up in the sixties and seventies. A regional network of higher education was then established for the first time. Drastic changes now would result in regional imbalances. The universities can count on ongoing political backing from the regions. Nevertheless, it will not be easy to maintain the high state of university expansion. At present it is teacher-training that is mainly affected by redeployment of staff. Three colleges of education have been closed in Baden-Württemberg during the past few years. In North Rhine-Westphalia Bonn university's educational faculty is to be incorporated in Cologne university. Study-courses for teachers in secondary level I are to be closed down at Duisburg and Siegen, and training for educationists in secondary level II at Aachen's technical university. Universities are still overcrowded way beyond the limits of their capacity and effectiveness. In 1986 786,600 scheduled "study- places" were available, but there were in fact 1,322 million students. The Science Council recently concluded in its "University Perspectives for the Nineties" that the number of students increased by 29% between 1975 and 1986, while total public expenditure on universities fell in real terms by around 2.4%. The present overcrowding has its roots in the fact that university expansion has reached the limits of what is financially possible for the federal and Laender authorities. Reduction of the time spent on studies could bring lasting alleviation. At present studies take an average of seven years. As early as 1965 Hans Dichgans lamented: "We hold the world record when it comes to the length of higher education." All measures for streamlining studies have to date failed to bear fruit.

In November 1977 the federal and Laender heads of government decided that access to university should be maintained for the youngsters born in years with high birth-rates – and that has been upheld until the present day. Sufficient training opportunities should thus be assured in the sphere of higher education despite the limited number of study-places. Existing capacities should be fully exploited, and admissions expanded through "overburdening quotas" and flexible re-structuring of staffing levels to meet the demands. This "overburdening" has in fact increased far more than expected in the course of the past decade. The Laender made budgetary provision for more teachers despite the difficult situation. Additional numbers of students were thus provided for without any intensification of restrictions on admission. The decision in favour of maintaining access to universities was therefore a correct decision.

Universities are public corporations – state institutions with the right to self-administration within the established legal framework. Legal supervision is exercised by the Land concerned. The Land and university act conjointly in regulation of studies and examinations, the establishment and re-organisation of courses and scholarly facilities, planning, and the appointment of professors. The universities' task is to further the development of the sciences and arts by way of research and teaching. The Basic Law in the Federal Republic of Germany expressly guarantees (in article 5, paragraph 3) the freedom of art and science, research and teaching, whereby freedom of teaching does not release from adherence to the constitution. The courses offered by universities and polytechnics include many concluding with a first degree state examination, or a university examination leading to an M. A., diploma, or doctorate. There are, for instance, degree examinations for doctors, teachers, lawyers, pharmacists, and nutritional chemists. Such studies used to conclude with a doctorate. Today a state or university examination must first be taken. M. A. and diploma examinations in the humanities – e. g. education – have only been introduced since 1960.

A distinction is usually made between scholarly institutions, colleges of art and music, and polytechnics. The scholarly institutions involve universities, technical universities and colleges, comprehensive universities, colleges of medicine, veterinary studies, and sport, church and theological/philosophical colleges, and colleges of teacher training and education.

In 1987 there were 242 institutions of higher education in the Federal Republic: 61 universities, 7 comprehensive universities, 10 autonomous colleges of education, 16 theological colleges, 26 colleges of art, 98 polytechnics, and 24 independent polytechnics.

Expansion of these institutions after 1960 (see tables 14 and 15 in the appendix) also entailed regional planning and intensification of the network of such facilities. New institutions of higher education were mainly established in densely populated areas or in border zones, – in the former case, Bochum, Essen, Dortmund, Duisburg, Wuppertal, and Hagen in the Ruhr Valley, and, in the latter, Bremen, Trier, Kaiserslautern, Passau, Bayreuth, and Bamberg.

In the 1987/88 winter semester, 1.416 million students attended universities and polytechnics. Their numbers increased over the previous year by 13%, despite experts having forecast a decline owing to youngsters born in years of lower birth-rates having by then reached university age.

	Students in Higher Education	Total teaching staff	Student-teacher-ratio
1960	291,100	19,100	15
1970	510,500	54,500	9
1980	1,044,200	79,100	13
1985	1,338,100	80,400	17

In the period between 1965 and 1975 when there were an average of 9 or 10 students to every member of the academic staff, the situation was better than before or afterwards – and it was just in that very phase of expansion with relatively favourable conditions for studying that the greatest student upheavals occurred!

Until the end of the sixties, the Laender bore most of the costs of financing the expansion of higher education. The introduction of shared tasks (see section 2.4) made possible the joint financing of new training facilities by both the federal and the Laender authorities. The enormous increase in such facilities since the seventies is thus the outcome of joint outline planning (see section 2.6).

The institutions of higher education have worked closely together in the West German Rectors' Conference since 1949. Originally only universities and colleges with a rectorial constitution and the right to grant doctorates and professorial qualifications belonged to this organisation. By now there are 190 member colleges. Universities and colleges with the right to accord doctorates continue to preponderate, but polytechnics and colleges of art and music are also represented. The Rectors' Conference has produced many recommendations and statements on university development and policy, and on the reform of *Gymnasien*.

The size of institutions of higher education varies considerably. Munich, for instance, is the home of the largest university in the Federal Republic and the smallest college – the University with over 57,000 students and the Film and Television College with around 100. The largest universities after Munich are Berlin (around 53,000 students), Cologne (46,000), Münster (43,500), and Hamburg (41,500). There are similar variations in the size of polytechnics. The three largest are Cologne (14,400), Munich (14,000), and Hamburg (12,200). Those are, however, exceptions. The majority have considerably fewer students – between 1,000 and 3,000 in the middle-sized polytechnics.

In 1986 77,374 foreign students attended German colleges, constituting around 6% of the total number of students in the Federal Republic. 40,770 of these come from Europe, including 9,362 from Turkey, 6,254 from Greece, 3,943 from Austria, 2,481 from France, around 2,000 from Great Britain, 1,504 from Poland, 570 from Czechoslovakia, and 75 from the Soviet Union. 4,513 come from Africa, 4,161 from the USA, 433 from Canada, around 3,000 from South America, and around 23,000 from Asia including 8,239 Iranians, 3,038 South Koreans, 2,138 Indonesians, and 1,560 Chinese from the People's Republic. The precondition for such studies are an educational qualification equivalent to the Abitur and adequate knowledge of German. Anyone who lacks the educational qualification can take a two-semester preparatory course leading to the "Examination for ascertainment of the suitability of foreign applicants for admission to university or polytechnic studies". The Conference of Ministers of Education has laid down guidelines for foreigners' access to studies together with regulations for the preliminary course and the admission examination. A special quota for foreign applicants forms part of the selection procedure for courses where there are restrictions on admission. For other courses there are in principle no limitations. Studies at state institutions of higher learning are free for both German and foreign students. In 1986 7,200 foreign students received German grants, mostly from the German Academic Exchange Service. Around 90% of the foreign students must finance their own living expenses, and a residence permit is not granted unless that can be guaranteed.

These reforms and the establishment of new universities, comprehensive colleges, and polytechnics have led during the past two decades to a diversity of forms hitherto unknown in the Federal German system of higher education.

15.1 Traditional Universities

These include the universities which already existed before 1960: Berlin, Bonn, Cologne, Erlangen-Nuremberg, Frankfurt/Main, Freiburg, Gießen, Göttingen, Hamburg, Heidelberg, Kiel, Mainz, Marburg, Munich, Münster, Saarbrücken, Tübingen, Würzburg. Apart from a few, such as the Johann-Gutenberg-University in Mainz and the Saarland University in Saarbrücken, which were not founded until the post-war period, most of these institutions can look back on a long university tradition. They cover the whole range of disciplines from theology, the traditional humanities, the social sciences, to medicine and the natural sciences. The old faculty structure has generally given way to a structure organised according to smaller groups of disciplines. Even where the traditional faculty name has been retained, this reformed structure still applies. These organisational units for research and teaching are generally more circumscribed than the old faculties, which grouped several disciplines together. The establishment of the new structure was meant to allow the universities to respond more flexibly to developments in scholarship and to bring together disciplines, which although related until recently, owing to the historical development of faculty structures, have often formed part of different faculties.

15.2 Technical Universities

The traditional technical colleges have mostly been redesignated technical universities in recent decades with professorships and institutes in the humanities and social sciences integrated in some cases. They largely serve teacher training with an emphasis on technology and the natural sciences. Their numbers include the technical colleges at Aachen and Darmstadt and the technical universities at Berlin, Brunswick, Clausthal-Zellerfeld, Hamburg-Harburg, Hanover, Karlsruhe, Munich, and Stuttgart.

15.3 Newly-Established Universities

The universities set up after 1960 regard themselves as institutions dedicated to reform. Their establishment was preceded by long and comprehensive planning. Experienced scholars in special committees developed new conceptions of a university. Memoranda and counter-memoranda went the rounds. These new universities either came into being as completely new institutions or were developed out of already existing colleges – such as Hohenheim university which developed out of an agricultural college, and Mannheim from an economics college. The institutes in old universities are based in many buildings all over the town or city whereas the new foundations mostly involve great complexes of new buildings on a campus. Never before were so many universities literally conjured up in so short a time. Their number include: Augsburg, Bamberg, Bayreuth, Bielefeld, Bochum, Bremen, Constance, Dortmund, Düsseldorf, Kaiserslautern, Lübeck medical university, Mannheim, Oldenburg, Osnabrück, Passau, Regensburg, Trier, and Ulm. The concepts underlying the establishment of the Ruhr university at Bochum (1965), Constance (1966), and Bremen (1971) were much discussed. Bochum was supposed to unite the scholarly disciplines of the traditional university and those of the technical college. The expectation that discussion would be possible between the humanities and engineering at all levels of the university could only be implemented to a limited extent – as Joachim H. Knoll later established. Plans for cooperation between subject-related disciplines and the attempt to foster interdisciplinary activities were only moderately successful.

Bochum was generously planned right from the start in terms of contemporary conditions. Calculations were for 15,000 students. Today there are 44,000! Constance, on the other hand, was intended to be a small, more elitist, reformist university with 3,000 students (now 6,000). The emphasis was supposed to be on interdisciplinary research, but it has hardly been possible to maintain that concept. Like Bochum, Bremen university unites technical and scientific disciplines with economics, the social sciences, the arts, and teacher training. Bremen saw itself as a highly politicised "counter-university". It was originally planned as a campus university integrating study facilities and student hostels, but that idea has in the meantime been given up. The organisation of studies in terms of projects was also new at Bremen, but little remains of that either. In conclusion, it should be remarked that the longer these new universities have been in existence, the more like the "old" institutions they become, and are scarcely to be distinguished from them. High-flying plans for reform have long become part of university history.

15.4 *Gesamthochschulen* (Comprehensive Universities)

The *Gesamthochschulen* were also a reform concept of the sixties and seventies. They unite in various ways the functions of universities, technical universities, colleges of education, polytechnics, and – to a limited extent – of art colleges. The university outline law of 26. 1. 1976 entertained the distant objective of making all colleges of higher education comprehensive universities, or of guaranteeing co-operation between the various forms of college by way of co-ordinating bodies. The 1985 third revision of the law expressly deleted that objective. For some years now the comprehensive universities have also just called themselves universities, indicating that their former designation is now obsolete. The first comprehensive university was set up at Kassel in 1971 when the existing colleges in the region were amalgamated and added to. Most of these "universities/comprehensive universities" are in North Rhine-Westphalia: Duisburg, Essen, Paderborn, Siegen, and Wuppertal. For the most part these also developed out of the amalgamation of earlier autonomous colleges and polytechnics. A diversity of entrance requirements prevail for their combination of courses and qualifications equivalent to both university and polytechnic levels. In addition there are integrated courses grouping students with a variety of school-leaving qualifications in basic studies concluding with an intermediate examination. The main course of studies, which can be completed after either two or four semesters, builds on that foundation.

The "Open University" correspondence course based at Hagen comprehensive university will be considered in section 15. 10.

15.5 *Kunst- und Musikhochschulen* (Colleges of Art and Music)

The state colleges of art and music cater for all kinds of artistic training: architecture, art, ceramics, church and school music, composition, conducting, dance, design, glass-work, goldsmithy, applied graphics, free graphics, instrumental music, interior design, musicology, painting, sculpture, song, and stage design. Teachers of art and music at general schools are also largely trained at these colleges.

15.6 *Pädgogische Hochschulen* (Colleges of Education)

See section 16 on Teacher Training.

15.7 *Fachhochschulen* (Degree-Granting Colleges of Higher Education)

The Laender signed an agreement on unification of *Fachhochschulen* on 31. 10. 1968. Schools of engineering, which had long proved their worth, and other advanced technical schools (e. g. for economics, social work, textile and garment technology, and agriculture) were then elevated to a status largely approximating to that of institutes of higher education. The schools of engineering had previously been rapidly expanded and their training courses unified in accordance with plans agreed by the Conference of Ministers of Education. Among the *Fachhochschulen* are also 24 independent institutions serving the training of future high-level administrators, particularly in the technical sphere.

The university outline law also applies to *Fachhochschulen*, laying down that these have a status similar to public corporations whilst being state institutions. *Fachhochschulen* are mostly financed by the Laender with the exception of the federal and private (largely church) foundations. The *Fachhochschulen* specialising in social studies were in fact mostly established by the churches. 47 subjects were initially on offer at *Fachhochschulen* with a broad range of choice. That was reduced to 16 in accordance with an agreement (14. 11. 1980) by the Conference of Ministers of Education as revised on 31. 1. 1986. The number of students at *Fachhochschulen* rose from 89,500 (1970) to 202,000 (1980), and then to 312,500 (1986), which expresses the great attractiveness of this form of study. The Laender responded to that trend by intensifying expansion of *Fachhochschulen*. Studies at such schools are more oriented towards the requirements of everyday practice than those at university. They do not usually take so long, and include longer periods of non-school practical vocational work. Possibilities of continuing at university, a comprehensive university, or a college of higher education are open to those who have completed their studies at a *Fachhochschule*.

15.8 *Bundeswehr* Universities

These were orginally established as federal army colleges in 1973 and have in the meantime been accorded university status. They are the responsibility of the federal authorities and are not just intended to serve all levels of military training. They are primarily conceived as scholarly institutions that provide young officers with courses of study that assist both their military career and a civilian profession should they leave the forces. These studies are limited to three years of three terms each. The Hamburg Bundeswehr university provides courses in electrotechnology, mechanical engineering, education, economics, and business management. The Munich university is organised in faculties of civil engineering and surveying, electrotechnology, information studies, aero-space technology, education, social sciences, and economics and business management. It also offers polytechnic courses in civil engineering, electrical engineering, economics, and mechanical engineering. Around 1,250 officers study at Hamburg and some 1,400 at Munich.

15.9 Church Colleges and *Fachhochschulen* (Degree-Granting Colleges of Higher Education)

The majority of theologians and teachers of religion are instructed in the theological faculties of state universities, but around 40% of all social workers and remedial educators receive their training at church *Fachhochschulen*. Church colleges do, however, also serve the instruction of clergymen and religious teachers, and church *Fachhochschulen* train staff for community welfare and educational services.

Church law, state law with regard to churches, and state law as applicable to higher education overlap in these church colleges. For centuries the Catholic church has maintained seminaries with the status of a faculty for the training of priests – alongside the theological faculties at universities. At present such seminaries exist at Frankfurt (St. Georgen), Fulda, Paderborn, and Trier; and there are monastic colleges for Franciscans and Capuchins at Münster, Jesuits at Munich, Pallotines at Vallendar, Redemptorists at Hennef/Sieg, Salesians at Benediktbeuren, and the Steyl Mission at St. Augustin. Church *Fachhochschulen*, usually for social studies and religious pedagogics, exist in Cologne, Freiburg, Mainz, Munich, Osnabrück, and Saarbrücken. A Catholic university was established at Eichstätt in 1972. Like a comprehensive university, this incorporates *Fachhochschule* courses in religious pedagogics and social studies with the following faculties: history and social science, Catholic theology, mathematics and geography, philosophy and education, and linguistics and literature. There were 2,200 students there in 1986.

Apart from Bethel, which was founded as early as 1905, the Protestant church colleges were set up in the thirties (Wuppertal and Berlin) during the period of struggle between church and state before quickly being closed down by the Nazis – and then re-established during the post-war period. There are also church colleges at Neuendettelsau (in conjunction with a *Fachhochschule*) and Oberursel where the Independent Evangelical Lutheran Free Church has a theological college. Church *Fachhochschulen* for social and religious pedagogics exist in Berlin, Bochum, Darmstadt, Freiburg, Hamburg, Hanover, Ludwigshafen, Nuremberg, and Reutlingen.

15.10 Open University

University studies based on correspondence courses have only existed in the Federal Republic of Germany for 15 years. The parliament of North Rhine-Westphalia approved the law establishing an Open University on 13. 11. 1974, and this institution commenced operations at Hagen on 1. 10. 1975. This Open University is meant to provide relief for other institutions of higher education, not to replace them. During the initial phase, courses were restricted to economics, mathematics, and related subjects in education. These pilot schemes received ongoing financial support from the Federal Ministry of Education and Science. By 1977 some 10,000 students had registered, and their number increased to 24,000 in 1987. The Open University/Hagen comprehensive university comprises the faculties of electrotechnology, education and social sciences, mathematics and information studies, law, and economics, as well as institutes for the research and development of media-supported correspondence courses. Study materials include course texts and multimedia teaching programmes. Personal contact is meant to enable the raising of individual questions about the courses. The studies involve integrated courses at university and polytechnic level in economics, mathematics, electrical engineering, and information studies; M. A. courses with education and social sciences as the main subjects, and mathematics, economics, social sciences, education, psychology, law, modern German literature and philosophy as secondaries; and various supplementary courses: business management for lawyers; economics for lawyers; business management for those holding a diploma in mathematics, engineers, and natural scientists; and advanced training for teaching staff in further education.

15.11 Studies for Senior Citizens

The number of older people, retired from the world of work, who attend lectures or study full-time is on the increase in the Federal Republic, but only rarely do they wish to gain an academic degree. The universities of Marburg, Dortmund, Oldenburg, Mannheim, Frankfurt, and Bielefeld have introduced special courses for senior citizens. At Frankfurt, for instance, there is the "university of the Third Age". Munich is also testing out "Studies for Senior Citizens" attracting around 400 participants. These lectures, seminars, and discussions usually serve further education of a general nature.

15.12 Graduate Colleges

On 29. 1. 1988 the Science Council approved recommendations relating to assistance for a graduate college. The Fritz Thyssen foundation had provided support for an initial pilot project in the molecular bio-sciences at Cologne in 1984. The federal and Laender authorities have since devoted attention to the project on several occasions. The Volkswagen foundation plans to back eight such colleges. The Science Council views this support for young scientists in conjunction with four objectives within research policy:

- the promotion of innovative research
- the intensification of interdisciplinary endeavours as a counterweight to extensive specialisation
- co-operation with new disciplines
- joint planning of research projects and programmes.

16. Teacher Training

Times of a great shortage of teachers and times of great unemployment among teachers have exerted a far-reaching impact on teacher training in recent decades, either stimulating or restricting it. A lack of teachers prevailed for about three decades during the post-war period – until the mid-seventies. That led to an expansion of teacher training, improvement of rates of pay, an increase in the number of promotions on offer and of specific responsibilities, and a large number of auxiliaries – the products of "crash courses" after 1945, and in the sixties rapid training for housewives who had broken off their studies for family reasons. Unemployment among teachers – to which we shall return in the final chapter – resulted during the past decade in training capacity at faculties and colleges of education sometimes being drastically reduced.

First let us take a brief look at the history of teacher training. Until the twenties there were two standard forms: by way of a seminary for teaching at elementary schools, and by way of academic training for posts at higher schools. As early as 1848 elementary school teachers demanded a university education for all teachers. The Weimar constitution took account of those objectives in article 143 paragraph 2: "Teacher training must be uniformly regulated throughout the Reich in accordance with the basic principles which apply to higher education in general". But neither unified regulation nor upgrading of training were achieved during the Weimar Republic. The draft of a law on teacher training did not get further than the cabinet. The Reich minister of finance and his Land counterparts opposed any such unified reform of teacher training because of the anticipated increase in costs entailed in higher qualifications. At the end of the Weimar Republic the training of elementary school teachers was less unified than previously. Bavaria and Württemberg adhered to the old form of seminary; Prussia established pedagogic academies; and Hamburg, Thuringia, Brunswick, Saxony, and Hesse incorporated such training in universities in various ways. The National Socialists initially introduced colleges of teacher training, but from 1941 transformed them into seminary-like institutions. After 1945 the autonomous college of education, patterned on the original Prussian model, prevailed in all Laender except Hamburg, which again incorporated teacher training in the university. The basic principle of academic and scholarly training for elementary school teachers was scarcely disputed any

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longer, but the question of the form such university training should take certainly was. In an assessment dated 13. 3. 1958, the German Committee for Education and Training spoke in favour of autonomous colleges of education, and advised against their incorporation in universities and the concentration of large colleges as planned in Hesse at that time. In most Laender colleges of education were still denominational in character – i. e. Catholic, Protestant, and sometimes a combination. Bavaria and Hesse went against the Council's advice, and attached their colleges of education to universities – and most of the Laender also followed that solution. Today autonomous colleges of education only exist in Schleswig-Holstein (Flensburg and Kiel), Rhineland-Palatinate (Koblenz and Landau), and Baden-Württemberg (Freiburg, Heidelberg, Karlsruhe, Ludwigsburg, Schwäbisch-Gmünd, and Weingarten). Colleges at Lörrach, Esslingen, and Reutlingen were closed down in Baden-Württemberg between 1984 and 1987.

Changes in numbers of students and teaching staff at colleges of education are exemplified in developments in Baden-Württemberg:
- Winter 1962/63 3,600 students, 590 permanent staff
- Winter 1974/75 23,000 students, 1,947 permanent staff
- Winter 1986/87 8,200 students, 1,157 permanent staff.

During the phase of expansion of general schooling, the training of the necessary teachers before it was too late was the key issue in educational policy. That is why Georg Picht in 1964 called for a doubling of the number of holders of the Abitur by 1970. Makers of educational policy were agreed that this involved quality as well as quantity. At this time there were great efforts to improve the level of training: this was made publicly apparent by way of affiliation with or integration in universities. In 1971 the German Education Council published "Materialien und Dokumente zur Lehrerbildung" ("Materials and Documents on Teacher Training"). In its structure plan the previous year the Council had already advocated far-reaching changes with graduated courses replacing different training for different types of school. It was also recommended that all academically-trained teachers should be paid as higher civil servants (such as senior secondary school teachers – *Studienrat*). In autumn 1970 the Conference of Ministers of Education discussed the harmonisation of teacher training and remuneration. They reached agreement on 8/9.10.1970 at Frankenthal/Palatinate over the basic elements of an outline accord providing for all teachers in future receiving six or eight semesters of academic training followed by eighteen months of preparatory service. After a transitional phase there were to be three streams within the teaching profession with graduated emphases for the primary, secondary I, and secondary II levels. On entering the profession all teachers at the upper level were to be equally paid. Never again were the ministers of education from different parties to be so close on these issues. Shortly afterwards this compromise could no longer be implemented in a unified outline agreement. A storm of protests arose after the ministers' Frankenthal discussions. The Philologists' Association viewed them as a damaging compromise which levelled down all teaching posts in terms of length of training and salaries, undervaluing and discriminating against scholars. The Philologists' Association primarily demanded that only teachers fully qualified in two subjects should give lessons in the upper level at *Gymnasium*. They wanted the possibility of a teacher with just six semesters of training in a single subject in future also being employed in secondary level II to be revoked. The philologists organised demonstrations and big rallies, impressing CDU and CSU ministers. The Federal-Laender Commission for Educational Planning's 1973 comprehensive education plan may have taken over the basic elements of the Frankenthal solution, but the then CDU/CSU-governed Laender – Baden-Württemberg, Bavaria, Rhineland-Palatinate, Saarland, and Schleswig-Holstein – advocated (in a special vote) differentiated teacher training with differing rates of pay. They thus upheld the organisation of teacher training for specific types of school. Nothing has basically changed there up to the present day. Ongoing graduated training at present exists in Hamburg, Bremen, North Rhine-Westphalia, and at Kassel comprehensive university, but the CDU/FDP coalition in Hesse is now considering allowing such training there to run down.

The trend towards transfer of teacher training to universities was largely the outcome of social ideology and vocational ambitions. Political majorities were of greater importance than professional considerations in deciding whether organisation of teacher training should be graduated or relate directly to the type of school concerned. The rapid changes that occurred in the Laender cannot be described here. The laws relating to teacher training and examination regulations were often altered again within just a few years. Complete integration of teacher training in universities in many places fulfils the demands of many elementary school teachers after a century and a half, but it remains uncertain whether today's "mass university" can really supply a grounding that is both scholarly and practical. There are frequent complaints of inadequate attention being paid to instruction in educational psychology, anthropology, educational theory, and the history of schooling.

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At present teachers for all kinds of schools – apart from staff at pre-schools and kindergartens, and technical instructors at general and vocational schools – are trained at universities, comprehensive universities, and colleges of education, art, and music. The precondition for admission to training is the Abitur (or an equivalent). Two phases of training can be distinguished:

- Studies, i. e., scholarly training in educational and social studies, the subject(s) to be taught, and in didactics and practical application. This concludes with the first degree examination.
- The introduction to school practice (on-the-job training), which usually takes between one and a half and two years.

The Conference of Ministers of Education has unified that period, decreeing that it should last for two years in all Laender from 1. 1. 1990. This phase comprises teaching practice at schools providing training, and complementary training at study seminars. In Schleswig-Holstein the Land Institute for School Practice and Theory is responsible for initiation into the profession. Training concludes in all Laender with part II of the degree examination.

There have been attempts to merge these two phases of training with initial practical experience incorporated in studies (as at the universities of Oldenburg and Osnabrück/Vechta from 1974), but that experiment has since been abandoned.

The examinations for the teaching profession carried out by the Laender in accordance with Conference of Ministers of Education recommendations are reciprocally recognised – following the Hamburg agreement (28. 10. 1964) on standardisation of the school system. With their resolution of 18. 1. 1979 the ministers approved joint regulations for those examinations – examiners' qualifications, composition of the examination commissions, etc.

The present state of teacher training is briefly outlined in the following. In the majority of Laender teachers are usually trained for specific types of school – primary schools, *Hauptschulen*, *Realschulen*, *Gymnasien*, vocational schools, and special schools. In Bremen, Hamburg, North Rhine-Westphalia, and to some extent Hesse, such training is graduated. There have been four levels of teaching qualification in Hamburg since 1982:

- Primary and intermediate levels (overlapping)
- Special schools
- Upper level of general schools
- Upper level of vocational schools.

Primary and *Hauptschule* Teachers (Primary & Secondary I Levels)

In most Laender – apart from Schleswig-Holstein, Baden-Württemberg, and Rhineland-Palatinate – training for teaching in primary schools and/or *Hauptschulen* is completely integrated in universities. In those three Laender instruction is supplied by colleges of education, sometimes in close co-operation with universities. Teachers at primary and secondary I levels must study a main subject and one or two subsidiaries over at least six semesters – and at least eight in Bavaria, Bremen, and Hamburg. In North Rhine-Westphalia too studies for a teacher at secondary level I take at least eight semesters.

Realschule Teachers (Secondary Level I)

In Berlin, Bremen, Hamburg, Hesse, and North Rhine-Westphalia, this training is linked with the courses taken by *Hauptschule* teachers or aspirants for the graduated secondary level I. In the other Laender studies leading to the qualification to teach at *Realschule* usually involve two subjects. The minimum period of study is six semesters in Hesse, North Rhine- Westphalia, Rhineland-Palatinate, Saarland, and Schleswig-Holstein, seven in Berlin, and eight in Bavaria, Bremen, Hamburg, and Lower Saxony.

Teachers at *Gymnasium* (Secondary Levels I and II)

Teachers at *Gymnasium* in most Laender are expected to have studied at least two subjects for at least eight semesters. In Baden-Württemberg and Berlin the minimum is nine semesters, and in Bavaria and Lower Saxony ten.

Teachers at Vocational Schools (Secondary Level II)

The minimum training period for vocational school teachers is eight semesters in the majority of Laender – except for Baden-Württemberg and Berlin (nine) and Bavaria (ten).

Teachers at Special Schools

This training can either take the form of basic studies or of a supplementary course following the first degree examination for teachers. The former entails students being specifically prepared for working in special schools without previously having any other training as a teacher. That is available in Bavaria, Bremen, Hamburg, Hesse, Lower Saxony, North Rhine-Westphalia, and Schleswig-Holstein. A special extension course following on from the first degree examination is possible in Baden-Württemberg, Hesse, Rhineland-Palatinate, and Schleswig-Holstein. Training as a special school teacher is highly differentiated, taking in such specialisations as education for the blind, the short-sighted, the deaf, the hard of hearing, the mentally handicapped, the physically handicapped, and children with learning, speech, and behavioural difficulties. Studies usually comprise two specialisations.

Technical Teaching Staff

The technical staff employed at vocational schools (e. g. teachers of stenography and typewriting) must have completed job training, an additional qualification at a technical school, and acquired basic educational skills in special courses. Bavaria offers special training in Bayreuth for educational assistants, intended to relieve the burdens of teachers and head-teachers.

In-Service Further Training for Teachers

In all of the Laender there are many opportunities for teachers to pursue further and advanced training. This is intended to keep teachers up-to-date on developments in the pedagogics, psychology, sociology, and didactics of the subjects they teach. In recent years teaching projects involving the environment, media, and information studies have become more important. Alongside in-school and regional possibilities of further training, there are centralised courses at such places as the Reinhardswaldschule near Kassel, the Bavarian centre for advanced teacher training in Dillingen, and the Rhineland-Palatinate state institute of advanced teacher training in Speyer. In addition Protestant and Catholic academies, the church study centres for religious education, the Land institute of political education, and the Federal Office of Political Education all offer a wide range of courses. Such advanced training usually takes place during teaching hours. Teachers are excused their school duties when they are taking part in such courses. A start has also been made on media-backed correspondence courses for teachers as, for instance, developed by the Tübingen-based German Institute for Correspondence Courses. The abundance of state and private backing for further and advanced training for teachers offers opportunities for a diversity of educational and didactic impulses and methods. Increasing participation demonstrates that what is on offer attracts interest.

In-service training aids constant adaptation of the teacher's knowledge to developments in scholarship and educational policy. Further training is directed towards acquisition of additional qualifications, for instance preparing teachers for such new spheres of instruction as information studies and work studies. Statistically, every teacher participates in advanced training at least once a year, but of course some attend several courses and others none since such training is voluntary.

17. Quaternary Level

17.1 Adult and Further Education

The abundance of sponsors and organisational forms involved in further education cannot be anywhere near completely outlined here. That also makes it difficult to do justice to actual developments. All the experts and the political parties are agreed that further education is of increasing importance. Adult education is one of the most recent occurrences in the history of education. Only during the Weimar Republic did the state begin to devote greater attention to "free popular education". Article 148 of the Weimar constitution stated that "Popular education, inclusive of the colleges of adult education, should be supported by the Reich, states, and local communities". A new epoch in adult education got under way during the postwar era, and a dense network of colleges came into being. In 1932 there had been just over 200 evening colleges in the entire Reich, but by 1956 over 1,000 already existed in the Federal Republic. A large number of church educational centres were also established at that time. A report (29. 1. 1960) by the German Committee for Education and Training on "The situation and task of German adult education" was of great importance for educational policy. The Committee demanded that the state should recognise adult education as a free and indispensable part of the public education system, providing financial assistance and, when the time was appropriate, a legal foundation. Further education was first integrated in overall planning in the German Education Council's 1970 structure plan. That declared: "The concept of constant further education entails organised learning being extended to later phases of life, and attitudes towards education being fundamentally changed . . . . It is necessary to establish institutionalised further education as a comprehensive and complementary post-school educational sphere. Further education as a continuation or resumption of earlier organised learning constitutes a connected whole in conjunction with the processes experienced during preschooling and normal schooling. Further education involves acquiring additional qualifications, retraining, and adult education. It complements the usual self-contained educational courses, pursuing them in a post-school situation. It also endeavours to relieve the educational system of the social pressure arising from unsatisfied educational needs and demands". The 1973 comprehensive education plan called for expansion of further education as a major element within the education system. This – said the planners – could not be seen and treated as either an arbitrary private matter or as a measure merely serving group interests. The comprehensive education plan took up the Education Council's ideas, viewing assistance for expansion of further education as a public responsibility, even though the individual had to develop the initiative for his or her personal development. The co-ordination of further education was to be ensured by the formation of local and regional bodies where all the relevant institutions – including colleges, technical schools, evening classes, firms, re-training centres, libraries, film centres, and labour exchanges – co-operated on synchronising their programmes.

Land laws, comprehensively regulating adult and further education, were passed in Schleswig-Holstein, Hesse, Bremen, Bavaria, North Rhine-Westphalia, Rhineland-Palatinate, and Baden-Württemberg between 1969 and 1975. Programmatic political declarations about the tasks and objectives of further training were accompanied by discussion of the conditions for state recognition and assistance of institutions of further education. The ideas put forward in the structure and comprehensive education plans were largely taken into account so that further education was recognised as a fourth sphere of education and a public responsibility. The budgetary finance provided by federal, Laender, and local authorities more than tripled between 1975 and 1987 – from 1,054 million to 3,300 million DM.

The most important sources of support for adult and further education are the federal authorities, the Laender, local authorities, the churches, employers' associations, trade unions, professional associations, firms, institutes of higher education, commercial forms of further education, scholarly societies, clubs and radio and television stations. In the "Thesen zur Weiterbildung" ("Theses on Further Education") published by the ministry of education and science in 1985, one of the key demands was "life-long learning for everyone". Structural change in the economy, technology, and society could only be achieved if all citizens became increasingly qualified. The initial phase of training was no longer enough for that, and so further training would become a necessary precondition and a lifelong task for everyone. The highest possible degree of readiness for further education should therefore be awakened among the population, with the foundations being laid at school and college and in vocational training. Further training could not, however, be planned, organised, and financed by the state to the same extent as with schools and universities. Moreover the federal government believed that pluralism and openness amid a wide range of tasks could best be guaranteed by competition between various sponsors.

This is a clear-cut change of course compared with the federal view at the start of the seventies that further education could be organised by the state through systematisation and expansion of courses to cover all areas. The 1985 theses also stress the mounting significance of further academic training, which is seen as an important task for universities. Courses of further study should therefore be developed beyond what is already available, and also opened up to qualified people with a job even if they do not have the Abitur.

The main emphases in federal assistance are:

- courses for specific groups of individuals, i. e. for the reintegration of women after a time occupied with the family, or further training for the unemployed
- mediation of key qualifications, i. e. introduction to information theory
- further training in the sphere of data-processing
- further training at institutes of higher education, i. e. study courses for university graduates already at work.

In this sphere the Federal Ministry of Education and Science and the Federal-Laender Commission for Educational Planning and the Advancement of Research have jointly made some 31 million DM available for 35 pilot projects.

Recently adult education and the associated didactics, which is pursued as research and teaching at universities and colleges, have been expanded to a greater extent.

The sphere of adult education is difficult to pin down in statistics. Widely differing estimates have been put forward. The number of adults who participate every year in further education is between 8.4 and 20 million. A representative survey on the development of participation in further education between 1979 and 1985, published by the Federal Ministry of Education and Science in 1987, came to the conclusion that one in four adults is involved in some kind of further education. That entails a projection of 8.4 million inclusive of 4 million undergoing advanced vocational training.

The *Volkshochschule* (college of adult education) is of particular importance here. This is the furthest developed and most widespread institution in this sphere, and is usually financed by the local community with additional support from the Laender. In 1986 5.18 million places were taken up at courses and training (see table 17 in the appendix) at the 856 colleges of adult education. The main emphases in adult education include foreign languages, an introduction to information studies, health education, administration, business and technology, arts and crafts, and home economics. As well as longer courses there are single events or series of lectures devoted to social, political, educational, psychological, philosophical, religious, and geographical themes. These colleges are aimed at all sections of the population. They are open to a diversity of ideological positions and social interests and do not view their task as entailing the propagation and dissemination of specific standpoints. These institutions are linked as associations at the Laender level, which since 1953 have belonged to the German Adult Education Association (Deutscher Volkshochschulverband, Heerstraße 100, 5300 Bonn-Bad Godesberg). The Bonn organisation supports an educational centre in Frankfurt am Main (Holzhausenstraße 21) with financial assistance from the federal and Laender authorities.

Self-administering business institutions with public corporation status (chambers of industry and trade, and of skilled trades and agriculture) also provide further training with state support. Their courses are directly tailored to the needs of the economy. The trades unions, the German Trade Union Federation, and the white-collar associations offer numerous training programmes for those in gainful employment. The political parties pursue courses in civics by way of special foundations. The SPD has the Friedrich Ebert Foundation, the CDU the Konrad Adenauer Foundation, the FDP the Friedrich Naumann Foundation, the CSU the Hanns Seidel Foundation, and the Greens plan a Heinrich Böll Foundation. The adult education supported by the Catholic and Protestant churches offers a wealth of courses – for mothers and parents, meetings devoted to theological or religious themes, further training, etc. The Protestant and Catholic academies have developed since World War II as centres for discussion, reflection, and research. The courses and meetings there bring together leading figures from politics, administration, business, culture, scholarship, and the churches for consideration of contemporary issues. These academies are of great importance in terms of formation of opinion and its dissemination in many spheres of public life. They have given rise to a number of political initiatives.

17.2 Correspondence Courses

Correspondence courses are mainly run by private firms and associations with a diversity of legal forms. Some 140 non-state organisations offer around 800 courses, which in 1986 were taken up by about 100,000 people. These can be grouped as follows: courses in preparation for external examinations (*Hauptschule* and *Realschule* certificates, Abitur, courses for business administration and technology); vocational courses in preparation for state or other public appointments; vocational training without any recognised possibilities of assessment; and hobby courses.

The agreement (30. 10. 1969) on the establishment and financing of a state centre for correspondence courses marked a first step towards introduction of supervision of such courses by the Laender. That was revised by the Laender on 20. 12. 1973 after the initial four-year period was over. The Cologne-based Laender centre for correspondence courses was assigned such tasks as the provision of information about all such facilities and the possibility of subjecting a course to inspection if that is in the public interest. A federal law (the *Fernunterrichtsschutzgesetz* of 24. 8. 1976) provides protection for participants from misleading advertising, dubious representatives, and prejudicial contracts. The registration of all correspondence courses was also unified. In addition the law opens up the possibility of involving the Berlin-based Federal Institute of Vocational Training in inspection of courses. The two existing branches of the state inspectorate, in West Berlin and Cologne, examine courses for their suitability with regard to contents and comprehensiveness of what is taught, the educational and specialised supervision of participants, contractual conditions, and advertising. A seal of quality is awarded if the outcome is positive. The 1973 arrangement was then succeeded by another agreement (16. 2. 1978), which is valid for an unlimited period and takes into account the legal situation created by the federal legislation. The centre's task is now defined as being to observe the development of correspondence courses, to assist them through recommendations and suggestions, to advise the Laender on issues within such teaching and the examination procedure for participants, to supply information about available courses and the educational possibilities available, and to inspect courses if so requested by the organiser. Detailed regulations cover the registration and acceptability of correspondence courses.

18. Current Issues

A number of major issues in current discussions of educational policy are outlined in the following section. The range of themes of current interest is in fact considerably greater. This is just a selection.

18.1 Education and Employment. Graduate Unemployment

Fifteen years ago Georg Picht – and many others – called for the "decoupling" of the education system from the requirements of employment, and for abolition of the bureaucratic regimentation of schooling legitimated merely by preoccupation with entitlements. Picht's proposals were utopian in character, excluding the realities of educational policy. Anyone who wants to abolish the regulation of entitlements and separate education from careers must say absolutely clearly what alternative he has to offer. Nothing more acceptable has been put forward to date. It has, on the other hand, been obvious since the seventies that considerable structural problems exist in the relationship between education and employment. Our basic social and economic order of the social market economy excludes interventionist measures with state control of employment opportunities. Future needs for work skills in terms of professions and levels of qualification cannot be accurately predicted, so co-ordination of the education and training system with industry and administration remains an ongoing task.

As we have seen, one of the most urgent tasks for federal and Laender educational policy over the past decade was to keep opportunities open for the younger generation as a matter of principle. In the eighties the main emphasis has been on assuring training places in the dual system and full-time vocational schools as well as at universities. The fact that this was largely successful is one of the great achievements of the state and business.

Reports by the Federal Labour Office show that even though joblessness among graduates has grown more than usual in recent years, the opportunities open to them on the employment market have at the same time considerably improved. The number of people with university or polytechnic training has increased by 750,000 since the mid-seventies. At the end of September 1987 125,600 graduates were out of work. That may be 10% more than in

986 but joblessness among gradutes was only around 5% in 1987 compared vith the overall figure of 9.2% unemployment. No matter how harsh unem-loyment may be for a graduate, or for anyone else, the Federal Labour Of-ice thinks it unjustified to talk about the growth of an "academic proletariat". ut does that not sound like a policy of soothing words? Are there not many oung graduates who have failed to find work according with their training? And does that not lead to dissatisfaction over the longer term? It is then hard-y possible to avoid concluding that the present degree of unemployment mong graduates is the outcome of wrongly directed educational policy in he sixties and seventies.

Developments in the teaching profession are unfavourable. According to cal-culations by the Conference of Ministers of Education, the number of fully rained teachers who have registered as being unemployed has risen greatly ince 1980. In 1987 27,969 teachers (including 18,897 women) were out of vork. 54.5% of those were trained for primary schools, *Hauptschulen*, *Real-chulen*, and special schools – and only 4.9% for vocational schools. In 1980 ome 34,000 new teachers were still taken on, whereas in recent years the igure was only around 7,000. The number of jobless teachers who had com-pleted higher education amounted to 25.7% in 1987. As a comparison: the umber of unemployed doctors also increased by 2,100 in 1987 to make a otal of 7,800. On the other hand, the opportunities for engineers, scientists, nd businessmen improved. For years now the teachers' associations and the Laender ministers of education have been discussing what can be done about he problem of unemployment among teachers. Many redistributive models re being discussed: e. g., reduction of the obligatory number of hours aught by all teachers, advancement of retirement, extension of part-time work, and reduction of the age-limit. Most controversial of all is the proposal hat the number of obligatory lessons should be reduced and at the same time salaries cut.

18.2 Assistance for Highly-Talented Youngsters

Such assistance has been one of the new emphases in federal educational policy since 1982. Sources of information and advice have been increased, research projects started, and pilot projects initiated at various levels. A considerable number of information sheets have appeared. Extension of research into the highly-gifted and international exchanges of experience was served by the sixth world conference on highly able and talented youngsters, assisted by the Federal Ministry of Education and Science, which was attended by over 500 experts from 49 states at Hamburg in August 1985. A national advisory centre for the highly-gifted was then established at Hamburg. Such high-powered competitions as "Young Researchers", "Young Music-Makers", and the International School Olympics in mathematics, physics, and chemistry have long encouraged youngsters. The German Science Foundation was responsible for many of these initiatives. No-one disputes that science and industry need particularly talented young people in order to develop high scientific and technical standards still further. In the university sphere organisations for assisting the talented, backed financially by the federal authorities, have existed for decades: Studies Foundation, Cusanus Foundation, Protestant Student Assistance, Friedrich Ebert Foundation, Friedrich Naumann Foundation, Hanns Seidel Foundation, and Hans Boeckler Foundation. The Heisenberg programme is concerned with assisting particularly talented young university lecturers. A few schools – such as the private youth village Christopherus school at Brunswick – devote themselves to providing for the specially talented, but none focus on mathematics and foreign languages as in the Soviet Union and the GDR. In a number of Laender there exist *Gymnasien* concentrating on the arts, but these do not view themselves as schools for elites. Educational experience shows that both constant under-stretching and constant over-stretching can lead to severe disturbances in personal development. That is why state schools must both take on children with learning difficulties, which happens gratifyingly often, and also provide for "high achievers". Educational administrations are at present devoting particular attention to assisting highly-gifted pupils in the state school system.

18.3 Foreign Pupils

The number of foreign children at German schools has grown since "guest workers" started to come to the Federal Republic in the sixties. In 1970 there were already 185,000, and seven years later almost half a million. A peak was reached in 1982 with 843,500, and the number has dropped somewhat since then. In 1986 811,080 foreign children attended state and private schools here. Almost half of them are Turks (395,000), followed by over 100,000 Yugoslavs, 85,000 Italians, 45,000 Greeks, almost 25,000 Spaniards, and some 15,000 Portuguese. 18,450 pupils come from Africa, and around 30,000 from Asia. The Conference of Ministers of Education has published documentation on foreign pupils from 1970 to 1986. The highest percentages of foreign hildren in 1986 were at Berlin primary schools (24%) and in Hamburg 17.9%), and the lowest in Schleswig-Holstein (4.4%). Most of these child- en attend primary schools and *Hauptschulen*, but the trend in favour of nore advanced secondary schooling is perceptible. 7.7% attended *Realschu- en* and 8.5% *Gymnasien*. The proportion of foreign children is particularly ronounced (16.6%) at comprehensives and Waldorf schools. Foreign child- en are mainly to be found in the city-states of Berlin, Bremen, and Ham- urg, and in the densely-populated areas of Baden-Württemberg, Hesse, and North Rhine-Westphalia. Their number is much lower in the other Laen- ler. Such numbers of non-German children were initially thought to be an ncumbrance, but their problems today meet with greater understanding. For many foreign children Germany has become their homeland. It is here, nd not in their country of origin, that they feel at home. Wherever there ave been unusually large numbers of foreign children, schools have to some xtent taken on a multi-cultural character. The children for the most part eceive additional lessons in their mother tongue inclusive of religious in- truction and geography. There have been many experiments in teaching hildren bi-lingually, building on the language used at home and mediating German as a second language. The longer children are at school, the more essons are taught in German while the mother tongue recedes. The great najority of foreign children – around 70% in Bavaria – attend normal rather han bi-lingual classes. If they can only follow lessons in German with diffi- ulty, they receive special help in intensive courses or attend classes for late- tarters in German. 6,800 foreign teachers including 2,337 from Turkey in- truct pupils in their mother-tongues. In 1986 a total of 55,100 foreign children completed their period of compulsory schooling: 27,000 with the *Haupt- chule* final qualification and 13,600 without (including 2,700 from special chools). Some 11,500 gained the *Realschule* qualification and around 2,900 he Abitur. Presentation of Islam in German schools entails a particular problem within constitutional law. In 1984 the Conference of Ministers of Education approved a report on the possibilities of religious education for Islamic pupils. The idea of a unified pattern for all the Laender was rejected. Several models were developed – such as lessons on religion merely providing facts about Islam on the responsibility of Laender educational administrations without participation by Islamic communities. Another model involves Islamic instruction as a regular subject with the agreement of the Islamic communities.

Since 1964 the Conference of Ministers of Education has several times agreed on guidelines with regard to the teaching of children of foreign workers –

most recently in the resolution of 8. 4. 1976 as revised on 26. 10. 1979. A number of recommendations were made on assistance towards integration in German schools – including preparatory classes, classes in which both the mother tongue and German are the languages of instruction, intensive courses, help in starting on secondary education, special schools, and vocational schools. Foreign pupils in normal classes are meant to have the possibility of additional lessons in their mother tongue inclusive of special emphasis on the history and geography of their home country. These additional classes should not exceed five a week so as not to overburden pupils.

18.4 Teaching Foreign Languages

The learning of foreign languages used to be a privilege for the low percentage of pupils who attended *Realschule* and *Gymnasium*. An epoch-making change occurred during the post-war period. Teaching all children English established itself without that ever having been a specific programme-point within educational policy. The statistics in tables 6 and 7 demonstrate that. Those also reveal how minimal changes in the relative importance of different languages have been in recent years. At present over 90% of German school children learn English, and have at least a basic knowledge of the language. The second much-learned language is French. Ever since the treaty on co-operation between the Federal Republic of Germany and France (22. 1. 1963), the two countries have striven to increase the numbers of pupils learning the other's language. A number of special measures were agreed on in additional agreements, aimed at elevating the status of French at school. In the Saarland, for instance, French is taught instead of English at *Hauptschulen* – and it is also only there that French is compulsory at *Realschulen*. In all other Laender it is usually one possible option among a choice of compulsory subjects. 28.7% of all pupils at *Realschule* are at present taking French lessons. A greater percentage (44.4% – almost half) of youngsters learn French at *Gymnasium* as a first, second, or third foreign language. A few *Gymnasien* present French as the main foreign language, but it is usually second to English. The position of French at integrated comprehensives is perceptibly weaker (30.4%) but none the less better than at *Realschule*. Latin is the third most frequently taught foreign language, accounting for 37% at *Gymnasien* (first, second, or third language), and 6.8% at integrated comprehensives. The teaching of Latin is a remnant of Europe's humanist tradition, extending from the old Latin schools by way of the humanist *Gymnasium* to the present day. Mention has already been made in section 9.4 of ıe regrettable decline in the teaching of Classical Greek. Numbers are so inimal that they no longer appear in the Conference of Ministers of Education's statistics. This must be called a break with an important and formative ierman cultural tradition. The numbers of pupils learning such living lanıages as Spanish, Russian, Italian, Japanese, and Chinese are also low. In ecent years the Laender ministers of education have published useful documentation on the teaching of foreign languages (see the bibliography).

n increase in the number of those learning French would be desirable in rms of European developments. A well-known writer from Alsace, André Veckmann, has made the practical proposal that the emphasis should be on ıe neighbouring country's language at all schools within 100 kilometres of ıe Franco-German border.

8.5 Basic Education in Information Technology

ince 1984 administrators of education have devoted much thought to the npact of new media and technologies on education and scholarship. As aleady mentioned, the Federal-Laender Commission for Educational Plannıg and the Advancement of Research developed an outline concept for inruction in information technology both at school and during vocational aining. On 16. 12. 1985 the Commission also approved guidelines for Training in information technology within higher education". The intenon is that pupils at the secondary level of schooling should receive basic ıstruction in this sphere within the framework of traditional subjects – but rincipally mathematics. At the upper level of *Gymnasium* that knowledge ıould be intensified by way of information studies as a separate subject. t vocational schools computer training must be based on the demands for pecific qualifications for particular jobs. Sufficient numbers of courses in ıformation studies should also be made available at universities and polyechnics. The federal and Laender authorities made provision for a 250 milon DM computer investment programme from 1985 to 1988 so as to improve technical facilities in higher education. In the meantime schools have rgely been equipped with computers too. Thousands of teachers have been ıtroduced to data-processing in further training courses. There are a large umber of regional possibilities for training, some of them organised by the pecial information centres established by the Laender. Basic training in inormation technology has by now become a matter of course at school and niversity. The transformation of structures of qualification resulting from echnological developments also affects curricula.

18.6 Environmental Education

Environmental education has been much discussed for over a decade now. The Conference of Ministers of Education approved a basic resolution on "Environment and Teaching" as early as 17. 10. 1980. This stated that: "The school should mediate insight into the complex interrelationships within our environment, indicating the problems that result from changing that environment . . . The attempt should be made to develop environmental awareness through such insights". That can take place in several subjects or by way of interdisciplinary forms of presentation. Environmental education is thus a teaching principle linking different subjects. Old educational reform ideas – such as the establishment of a school garden – have thus become of topical interest once again. The idea of introduction of a special subject was turned down. Environmental education has become an integral component within schooling, and the Conference of Ministers of Education published a comprehensive report on 12. 12. 1986. In the same year the Federal-Laender Commission on Educational Planning and the Advancement of Research decided that the incorporation of environmental issues into schooling should be a new sphere of research. In 1987 the Federal Ministry of Education and Science put forward a study programme on "Environmental Education", and the following year published a report on the current situation and future perspectives entitled "Zukunftsaufgabe Umweltbildung" ("Environmental Education – a Task for the Future"). In September 1987 Lower Saxony launched a pilot project devoted to a "Voluntary Ecological Year" for young people aged between 17 and 25. They are offered a chance of between six and twelve months of practical work in various environmentally-concerned organisations during the period after completion of schooling and before the start of vocational training.

18.7 The "German Question"

On 23. 11. 1978 the Conference of Ministers of Education approved a resolution on "The German Question at School", which remains topical and valid up to the present day. This begins with the words: "Awareness of German unity and the will to reunification in peace and freedom must be kept alive and developed. A necessary precondition for that is knowledge of the other part of Germany, its people, and the developments under way there. A political solution leading to reunification does not seem possible at present. Forms for regulated co-existence between the two states in Germany must therefore be sought in the interest of the human beings on both sides of the frontier. So long as concrete successes for a policy directed towards reunification are not in sight, what matters is to sustain the long-term political, legal, and humanitarian claim to German unity and free self-determination for all Germans". This unusually detailed resolution contains an abundance of ideas for teachers concerned with this subject at all types of school. The ministers of education work on the principle that the "German question" should be dealt with in all subjects rather than within a single one. They have in the meantime paid heed to this resolution in Laender curricula, and published a great deal of material on presentation of the German question in lessons at school. How that affects young people's knowledge of the situation remains an open question. Surveys time and again demonstrate how little school children know about the GDR. Class trips to East Germany attempt to provide such knowledge and experience – and the number of such trips has tripled since 1983. In 1987 64,000 school children made the journey to the GDR. That statistic shows that only a small number of youngsters gain a first-hand idea. For most young West Germans, Weimar, Dresden, and Rostock are much more distant than Rome, Paris, or London.

19. Concluding Remarks

It would seem obvious to conclude this attempt at outlining the structures and problems of the German education system with a stock-taking of the situation in 1988 – but that presents difficulties. It is not easy to determine criteria for evaluating what an education system is capable of achieving, or where it is overburdened and fails to deliver the goods. That involves the old problem of quality and quantity. If the latter is all that matters, an impressive balance can quickly be produced, showing more and more young people being helped to achieve higher educational qualifications in recent decades. In general schooling developments were as follows between 1965 and 1985. In 1965 53.1% of children left school with the *Hauptschule* final qualification as compared with 39.6% twenty years later. The figures for the *Realschule* qualification (or its equivalent) are 11.8% and 51.9%; and the qualification for university entrance was gained by 6.9% of the relevant age-group in 1965 and 22% in 1985. Those few figures demonstrate a change in "attitude towards education". If, however, the quality of what was achieved in the education system is at issue, one is largely dependent on speculation. Attempts to confront that problem by way of empirical sociological research are largely lacking. Much therefore speaks in favour of completely renouncing any attempt at reviewing the overall situation – in accordance with the old saying: all's well if no-one complains. But that is the problem. There are a number of complaints, not all of them necessarily justified. If one surveys the German educational scene of the past couple of decades, one thing is strikingly apparent. It is characterised by restlessness and lack of tranquillity. There are constant "reforms" at all levels. Today there may be considerably less such activity than in the "stormy periods" of educational reform, and yet time and again there comes a wave of change – with the intensity varying from Land to Land. Revision of curricula was a particular emphasis in the work of educational administrators over the past decade. Great efforts were devoted to adapting curricula to new educational and specialised knowledge. Such new spheres as environmental education and basic information technology were taken into account. But has not the moment also come for remembering what has "stood the test of time" – principally the teaching of history and German? The agreements reached last year by the Conference of Ministers of Education on reform of the upper level demonstrated signs of the beginnings of an upgrading of those subjects. But should not that apply to all levels of schooling? The treatment of religion at school, which is obviously often in danger of being transformed – if it exists at all – into "social studies" also time and again offers occasion for criticism. Whoever wants to educate young Germans as Europeans must promote their national identity, mediating the basic historical and religious knowledge necessary for understanding Germany and Europe today.

As is well-known, there have never existed "educational provinces" in a political vacuum. On the other hand, it is also indisputable that the distances between such provinces and politics were sometimes greater in the past, so that not every movement within the Zeitgeist led to changes in educational policy. People seem to have completely forgotten that the concept of "school" derives from a Greek word which simply means "leisure". Tranquillity is, however, a necessary aspect of leisure – and that only exists at an increasing distance from day-to-day politics. Will it ever be possible to assure our schools and universities of semi-autonomous zones of freedom offering somewhat more leisure?

19.1 The School System

The fact that the much-feared "death of schools" (see table 1 in the appendix) did not come about despite an enormous drop in numbers of pupils must be seen as a great achievement on the part of educational policy. Such a situation mainly occurred in the sixties when – within the framework of reforms and rural centralisation – the number of primary schools and *Hauptschulen* in the Federal Republic of Germany went down by about a third: from some 31,100 (1960) to 21,500 (1970). When the number of pupils reached a peak in 1975, the total of such schools attained its lowest point at 18,100. When the number of pupils declined, the expectation was that more schools would be closed. The prophets were wrong. The number of primary schools and *Hauptschulen* steadily increased – and in 1986 there were 20,431. We have mentioned the new trend towards once again intensifying the network of primary schools in rural areas. The feared cuts in the network of *Realschulen* and *Gymnasien* did not come to pass either. Their number remained almost constant despite the fall in pupils. In 1980 there existed 2,623 *Realschulen* and 2,477 *Gymnasien* compared with the 1986 figures of 2,609 and 2,469. The number of teachers could be maintained at a gratifyingly high level. The size of classes (see table 5 in the appendix) declined considerably at a time when numbers of pupils were falling. That provided a decisive precondition for lasting improvements in the teaching situation and the "quality of schooling" which brings to mind Adolph Diesterweg's splendid words: "A school's value depends on its teachers". The way in which improvements in background conditions are transposed into "quality" ultimately depends on individual schools and their staff. The teachers primarily shape the profile, the life, the spirit, of a school. Educational administrations can create the outer conditions, curriculum commissions put forward new ideas, and the Conference of Ministers of Education reach agreement on forward-looking recommendations, but all that is put into effect in individual schools and in individual lessons. Parents, pupils, and their representatives are also offered considerable possibilities of playing a part here. Does that not sound as if the autonomy of the individual school were already long reality in this country? Anyone who knows the system more closely is aware of the tight rein (almost a constant trot) imposed by educational administrators on schools.

Our schools have always regarded themselves as "vehicles of culture" in the broadest sense rather than just places where knowledge is mediated – and gratifyingly still do so today. Schools are an integral part of village and urban communities, which today still receives expression in community responsibility for these institutions. Community cultural life is also largely dependent on teachers. Be it in adult education, in sport, in choirs and orchestras, or in non-school youth work – everywhere teachers often play a leading part. The cultivation of music, theatre, and public exhibitions of pupils' art is part of the life of many schools. All that can arouse pleasure in existence at school and give pupils experiences of success. Teachers today still dedicate themselves to such activities at school – in the spirit of Karl Jaspers' sixty year-old observation at the beginning of this book. They also take on responsibility for school outings, study trips, and stays at school hostels, involving hundreds of thousands of pupils annually. Lessons are also enriched by visits to, say, public institutions, industrial firms, and the many great cultural exhibitions to which teachers and pupils flock – devoted for example, to the Hohenstaufen dynasty, the Wittelsbachs, Prussia, and numerous presentations of regional and cultural history. All kinds of new museums were established during the past decade, most strikingly documented in Frankfurt's "museum bank" on the Sachsenhausen side of the river Main. School museums were set up too – as at Ichenhausen (Günzburg) in Bavaria. Life is also enhanced by the international relationships created through twinning of schools – most often with schools in France, Great Britain, and the USA, and less frequently in Italy, Israel, and neighbouring Eastern European states. Exchanges of teachers and pupils brings a host of new experiences for all those involved.

These pleasing developments are, however, accompanied by others which provide occasion for concern. Disruptions of teaching and fooling around have always occurred. Skilful teachers were even capable of transforming that into a splendid way of enlivening lessons. But today there are many complaints about an increase in disturbances of teaching and mounting aggressiveness on the part of pupils. The catchword is: lack of discipline at school. It must be seen as an outcome of the completely changed situation facing schools as institutions for the "mediation of education" in the age of the mass media. Pupils spend many of their leisure hours in front of a TV set and have become accustomed to "passive consumption", so at school they are sometimes tired, unconcentrated, and can scarcely be motivated to make a contribution. The "school discipline", once characteristic of the German approach, today sounds like something out of a historical lexicon. Social developments, such as increasing numbers of women and mothers going out to work as well as mounting numbers of single parents, will most probably result in more all-day schools replacing teaching limited to mornings. That demands long-term planning and considerable investment. In that context, Kurt Frey remarked as long ago as 1980: "All-day schools, initially as already part of the tripartite school system, would have been more benefical and useful than laboriously devised and anxiously tended (and defended) comprehensives". Up to now there are relatively few all-day schools (see section 6). Parents and teachers do not easily give their support, which demands a transformation of mentality. Teachers' traditional privileges usually include "free" afternoons, renunciation of which would amount to a revolution. Parents' understandable reservations are also linked with their experiences at schools as they are. If there is already talk of a "decline in character-training", what would be the result of day-long exposure to such schooling? The all-day school can only gain ground if the work it does and its educational climate convince parents. That, however, entails changes in teacher training, preparing students for new educational tasks within the all-day school.

19.2 Universities

22 colleges with university status were newly established between 1960 and 1980. That was something unprecedented in the history of German education. During the same period the number of full-time academic staff more than tripled and the money spent on the entire university sphere increased six times over. And yet universities continue to be overburdened. The "relief programme" originally conceived about a decade ago as a provisional meas-

ure has long become a permanent fixture. The number of newly created study-places was not enough to alleviate the situation since, contrary to all predictions, the number of students is still mounting. The Numerus clausus, otherwise only an emergency measure within the history of German education, was also accepted as a normal, bureaucratically legitimised phenomenon. It is, nevertheless, an educational calamity, and a great contradiction in view of the fact that today we belong to one of the most prosperous countries in the world and are certainly not living in a "state of emergency". That is the real problem – one would almost like to say, a scandal. The right of holders of the Abitur to freely choose the studies they pursue, a right which, significantly, was a matter of course in times of pre-democratic constitutions, is here critically restricted. That, it must be conceded, is the outcome of the educational objective of increasing the number of holders of the Abitur without regard to the availability of university places – which brings back to mind Heinrich Roth's fateful words in 1966 (see section 1.1).

What, ultimately, were the fruits of the decades of discussion about university reform and all the attempts at establishing universities and their academic life on fresh foundations by way of legislation such as the university outline law? The German university's worldwide reputation was based on extensive autonomy and the quality of the teaching. Today only remnants of that autonomy still exist. It is probably unrealistic to expect that the trend towards increasing heteronomy will be reversed. But this is where a start must be made if the quality of our universities is to be increased.

It would certainly be worth devoting great effort to risking a "university experiment" involving much greater autonomy than is at present the case. In the meantime, however, state administrators of education are compelled by cut-backs in public funds to "restructure" professorships – in other words, to intervene deeply within matured structures.

Now it is well-known that universities' capacity for achievement depends on the abilities of the teachers involved. In his 1985 publication "Konkurrenz der Kopfarbeiter" ("Competition between Intellectuals"), Walter Rüegg makes the telling remark: "A university's efficiency primarily depends on the quality of its teaching staff. Good professors attract good colleagues and good students, endow an area of research and teaching with weight, open up new paths, and thereby change the structures of study programmes and research institutions. Mediocre or bad professors tend to surround themselves with others of the same character, thereby allowing their subject to atrophy in stagnation and isolation". Nothing more remains to be said!

The material conditions for studying have worsened for many students from lower-income families ever since the federal government's 1982/83 economy measures. The West German Rectors' Conference established that the percentage of students receiving financial support in terms of the relevant federal law had declined from 28% (1982) to 18% (1987) – and at polytechnics from 54% to 34%. Assistance towards higher education thus largely lost its function of making opportunities for study independent of student's social situation.

19.3 A Look Ahead

The objectives the Conference of Ministers of Education established at their 200th plenary session – at Berlin on 16/17 October 1980 – constitute a long-term programme. It is, for instance, stated: "Greater emphasis must be put on educational content at school, and greater attention should be devoted to the task of character-training . . . The claims of school and university to educational and academic freedom must be assured against increasing regimentation through legal judgements, legislation, and bureaucratisation". Objectives worthy of total support. But have they come any closer to implementation over the past eight years?

A critical voice, such as Hans-Dietrich Ortlieb, should not be ignored when assessing reforms. In 1985 he called for a "reform of educational reform", and asked: "How did it happen that the reforms set in motion in the sixties did not, as proclaimed, help bring about a cultivated society, but rather something malformed, hostile towards achievement and self-destructive? . . . Educational reform in this country is not concerned with problems from the past, which can be forgiven and forgotten, but largely with time-bombs which will have a dangerous social impact in the course of the next two decades". The most important precondition for an education system doing justice to an existing situation – continues Ortlieb – is a realistic picture of human beings. What is needed is an education system that "concentrates completely on untiringly facing up to reality rather than cultivating utopias. Only then can we learn to make the best of any future. That, however, entails a return to the centre, which has got completely lost with the fashion for the permissiveness of anti-traditionalism, libertinism, and egalitarianism".

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In October 1980 the then Federal President, Karl Carstens, gave a speech during the 200th plenary session of the Conference of Ministers of Education. That speech is still worthy of attention today, and is therefore quoted here in conclusion. The Federal President devoted particular attention to reform of the upper level at *Gymnasium*. "Educational reform offers many positive aspects. I am thinking mainly of the opening up of educational opportunities for all. That is a great gain. I also believe that young people have become more open, which we certainly welcome. But we should not overlook the negative aspects which also exist: the anonymity and lack of attachments resulting from the dissolution of school classes and the establishment of very big institutions; the occasional impossibility of comparing achievements from Land to Land, and the widespread diffidence about mediating values. The clearly apparent loosening of personal ties in our society is a cause for concern. The isolated human being with few contacts becomes intellectually and emotionally impoverished. That leads to lack of interest, or, even worse, to resignation. He 'drops out' as current jargon puts it, or succumbs to an uncritical search for new ties. The outcome is the opposite of what we want to achieve, which is young people who are self-assured, tolerant, and at the same time critical.

I believe that the connection with an established school class is extremely important for a young person. Forms of social behaviour are practised there; he puts himself to the test there; he finds help there; and life-long friendships grow there . . . In recent years we have achieved many positive things in our education system. Other no less important things we have not achieved. We have built new schools and equipped them with the most modern technical facilities and teaching aids. It is a joy to visit these schools. We have taken on more teachers. We have enabled more children to pursue their education further. But have we not somewhat neglected the non-material aspects of education?" That question is directed to all of us today – to parents, teachers, pupils, university teachers and students, educational policy-makers and researchers. The impact of educational reforms will only become apparent from a greater distance in time. Here too the gospel according to St. Matthew holds good: 'By their fruits ye shall know them'".

APPENDIX

1. Types of General School in the Laender

Year Land	General Schools							
	Total							
		School Kindergartens	Primary and Secondary Moderns	Special Schools	Intermediates	Grammar Schools	Comprehensives	Evening Classes
	Nationwide							
1960	35,433	220	31,109	1,106	1,125	1,823	–	50
1965	35,660	556	30,048	1,469	1,555	1,926	–	106
1970	29,793	1,303	21,504	2,381	2,116	2,311	–	178
1975	29,130	3,175	18,107	2,645	2,348	2,415	216	224
1980	30,047	3,207	18,411	2,856	2,623	2,477	255	218
1981	30,193	3,233	18,541	2,827	2,633	2,480	262	217
1982	30,167	3,244	18,468	2,820	2,639	2,489	285	222
1983	30,061	3,263	18,356	2,800	2,644	2,485	297	216
1984	31,072	3,281	19,325	2,819	2,628	2,487	301	231
1985	31,084	3,335	19,280	2,826	2,617	2,486	314	226
1986	32,278	3,372	20,431	2,824	2,609	2,469	339	234
	Private Schools							
1986	1,963	335	348	506	252	330	96	96
	Laender 1986							
BW	5,497	342	3,618	570	442	415	34	76
BA	5,556	291	4,056	389	398	396	10	16
HE	3,038	309	1,855	237	270	262	79	26
LS	4,592	597	2,984	307	411	260	24	9
NW	7,591	859	4,637	749	552	639	102	53
RP	1,683	85	1,187	156	108	137	7	3
SA	507	34	330	51	37	37	10	8
SH	1,844	332	997	219	180	101	6	9
BE	784	259	299	58	45	70	32	21
BR	424	79	192	27	48	66	6	6
HA	762	185	276	61	118	86	29	7

Source: Basic and Structural Data 1987/88

2. Pupils at Different Levels of General Schooling

Pupils at different levels of general schooling (in thousands)

Year	Pupils							
	Pre-Schooling		Primary Level (Classes 1–4)		Secondary Level I			
	Pre-classes	School Kindergarten	Primary Schools	Integrated Comprehensives Free Waldorf Schools	Autonomous Orientation Level	Secondary Moderns	Intermediate Schools	**Integrated Comprehensives/ Free Waldorf Schools¹)**
1960	•	•	3096.9	•	•	2122.4	430.7	•
1965	•	10.9	3453.2	•	•	2112.5	570.9	•
1970	•	31.8	3972.5	•	•	2374.9	863.5	•
1975	•	84.2	3914.7	14.8	•	2510.4	1179.9	**143.9**
1980	13.0	49.2	2772.8	13.1	337.9	1933.7	1351.1	**188.9**
1981	13.8	46.9	2589.9	13.6	332.3	1853.0	1323.4	**191.1**
1982	14.4	45.4	2439.4	14.2	313.6	1748.0	1278.1	**189.9**
1983	14.6	44.1	2350.9	15.3	283.2	1611.7	1214.4	**187.0**
1984	14.5	43.7	2290.4	16.1	254.1	1460.3	1132.2	**182.6**
1985	15.3	44.8	2254.6	17.0	239.9	1332.5	1049.0	**178.2**
1986	25.5	36.8	2269.0	18.6	224.9	1227.9	975.5	**194.5**

¹) Classes 5–10

Source: Basic and Structural Data 1987/88

Continuation of table 2

Pupils at different levels of general schooling (in thousands)

Pupils								
Secondary Level I			Secondary Level II			Special Schools		Year
Evening Secondary Moderns	**Evening Intermediate Schools**	Grammar Schools Classes 5 to 10	Year Levels 11–13	Integrated Comprehensives/Free Waldorf Schools²)	Evening Grammar Schools/Colleges	Classes for the Backward	Classes for other Handicapped	
–	1.9	641.7	211.7	•		108.5	34.4	1960
–	4.1	760.7	197.2	•	10.7	161.4	30.9	1965
–	8.8	1062.1	317.4	•	15.4	264.6	57.4	1970
–	11.5	1394.5	469.0	7.2	23.3	314.4	88.6	1975
–	8.9	1495.5	623.5	18.2	26.3	244.2	110.1	1980
–	9.4	1448.1	658.3	20.9	27.7	226.3	110.7	1981
–	9.3	1378.3	672.1	22.2	27.9	209.6	109.7	1982
–	9.2	1289.1	671.7	23.3	27.7	193.1	108.8	1983
0.7	9.1	1193.4	659.3	23.0	28.0	178.0	106.6	1984
0.7	9.1	1110.2	640.1	23.1	28.0	163.6	107.8	1985
0.6	9.8	1047.1	608.7	25.6	28.7	152.9	108.5	1986

²) Year-levels 11–13

3. Teachers (in thousands) according to Type of School and Laender

Teachers 1) in thousands according to type of school and Laender

Year Land	Teachers 1) at								
	General Schools								Vocational Schools 2)
	Total								
		Primary/ Secondary Modern	Special Schools	Intermediate Schools	Grammar Schools Classes 5–10	Classes 11–13	Comprehensives	Evening Schools/ Colleges	
	Nationwide								
1960	224.1	148.1	7.3	19.3	48.9		–	0.5	39.4
1965	257.7	168.1	10.6	24.3	53.8		–	0.9	44.2
1970	338.7	201.5	21.0	37.8	76.9		–	1.5	50.5
1975	431.0	234.3	33.4	51.8	64.3	33.8	11.3	2.1	64.1
1976	446.2	238.3	35.7	54.5	68.1	34.6	13.0	2.1	65.9
1977	456.7	236.9	37.5	57.9	72.0	35.8	14.4	2.1	68.7
1978	464.6	235.7	39.0	60.3	73.9	38.3	15.1	2.2	72.4
1979	472.8	234.6	40.2	61.7	73.4	44.1	16.1	2.2	75.9
1980	478.1	232.9	41.0	62.7	73.5	48.3	16.4	2.3	79.2
1981	480.9	230.8	41.4	63.1	73.6	52.4	17.2	2.4	83.7
1982	474.3	226.0	40.9	62.2	71.5	53.9	17.3	2.5	85.9
1983	467.6	220.9	40.3	61.3	69.8	54.9	17.8	2.6	87.3
1984	461.7	216.8	40.3	60.6	67.5	55.6	18.1	2.8	88.5
1985	457.1	214.5	40.1	59.3	65.3	56.6	18.5	2.8	89.5
1986	452.0	212.1	39.8	57.7	64.5	55.7	19.3	2.8	89.6
	Laender 1986								
BW	72.6	31.7	8.0	11.7	11.7	7.4	1.8	0.2	16.8
BA	78.5	42.2	6.4	9.4	11.4	8.5	0.5	0.2	14.6
HE	37.1	15.3	2.6	4.2	5.2	5.6	3.8	0.4	7.5
LS	56.0	29.3	4.3	7.8	5.8	6.7	1.8	0.2	11.7
NW	125.2	56.7	11.9	14.3	18.3	16.9	6.0	1.3	21.9
RP	25.1	13.4	1.7	2.9	3.8	3.0	0.3	0.1	4.7
SA	7.4	3.7	0.6	1.0	1.2	0.8	0.3	0.0	1.9
SH	18.6	7.6	1.8	3.6	2.9	2.3	0.3	0.1	3.2
BE	14.9	6.5	1.1	1.1	1.8	1.8	2.3	0.3	2.6
BR	5.6	2.5	0.6	0.6	0.6	1.0	0.3	0.1	1.4
HA	11.0	3.2	0.9	1.0	2.0	1.8	2.0	0.1	3.1

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1) Full-time teachers plus part-timers calculated as such

2) Without schools serving the health service

Source: Basic and Structural Data 1987/88

4. Pupil-Teacher Ratios – according to Type of School and Laender

Pupil-Teacher [1]) Ratios – according to Type of School and Laender

Year Land	Pupils per teachers [1]) at								
	General Schools								Vocational Schools [2])
	Total								
		Primary, Secondary Moderns	Special Schools	Intermediate Schools	Grammar Schools Classes 5–10	Classes 11–13	Comprehensives	Evening Schools/ Colleges	
	Nationwide								
1960	30.7	36.7	20.5	23.0	17.7		–	22.5	42.6
1965	28.3	33.1	17.7	23.5	17.9		–	16.3	47.4
1970	26.7	31.6	15.3	23.1	18.8		–	15.9	39.6
1975	23.3	27.3	11.8	22.7	21.7	13.5	16.3	16.2	33.8
1976	22.5	26.2	11.2	22.9	21.4	13.2	15.8	15.4	32.4
1977	21.8	25.5	10.7	22.7	20.9	13.0	15.5	15.4	31.9
1978	20.9	24.3	10.0	22.4	20.6	12.8	15.4	14.8	32.2
1979	20.3	22.8	9.3	22.1	20.8	12.8	15.6	14.7	32.4
1980	18.5	21.6	8.7	21.5	20.4	12.9	15.4	14.8	32.0
1981	18.3	20.5	8.3	20.9	19.7	12.5	14.8	15.4	30.9
1982	17.7	19.8	7.9	20.5	19.3	12.4	14.6	15.0	30.1
1983	17.0	19.1	7.6	19.8	18.5	12.2	14.1	14.7	29.8
1984	16.3	18.4	7.2	18.7	17.7	11.8	13.4	13.7	29.9
1985	15.7	17.8	6.9	17.7	17.0	11.3	12.9	13.7	29.6
1986	15.3	17.5	6.7	16.9	16.3	10.9	12.5	13.8	28.9
	Laender 1986								
BW	14.6	17.2	5.5	16.2	14.3	11.4	12.5	17.7	25.2
BA	15.3	17.1	6.1	16.4	16.8	10.3	13.5	13.6	29.9
HE	16.3	19.8	7.4	18.6	17.0	10.8	13.3	12.4	29.2
LS	15.1	17.3	6.7	15.9	15.1	11.0	11.6	9.8	28.1
NW	15.8	18.0	7.5	18.6	17.7	11.2	12.9	14.3	32.0
RP	15.6	16.7	7.6	17.7	17.1	11.4	13.6	9.5	31.8
SA	14.1	16.3	5.6	13.9	14.2	10.6	12.7	32.7	25.4
SH	15.6	18.5	7.5	16.1	16.0	11.1	13.5	15.2	35.8
BE	12.9	15.5	6.3	14.0	13.5	9.5	10.5	12.3	21.6
BR	12.8	14.9	5.9	14.7	14.4	9.7	11.3	12.9	27.4
HA	14.5	19.3	7.1	15.6	15.4	10.9	12.2	14.0	22.4

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[1]) Full-time teachers plus part-timers calculated as such

[2]) Without schools serving the health service

Source: Basic and Structural Data 1987/88

5. Class Sizes in Selected Types of School 1980–86

Class sizes in selected types of school 1980–86

Type of school	1980	1981	1982	1983	1984	1985	**1986**
Primary School	24.1	23.4	22.7	22.2	21.8	21.5	**21.4**
Secondary modern	26.4	25.5	24.7	24.1	23.1	22.2	**21.6**
Intermediate School	29.8	29.2	28.8	28.1	27.1	26.1	**25.2**
Grammar 5–10	30.3	29.8	29.1	28.3	27.3	26.5	**25.9**
Integrated Comprehensive 5–10	28.7	28.3	27.9	27.5	26.4	25.6	**25.2**
Special School	11.8	11.4	11.0	10.7	10.3	10.1	**9.9**
Vocational School	23.2	22.9	22.9	22.9	22.9	22.7	**22.2**
Basic Training Year	23.0	23.3	23.1	22.8	22.5	21.6	**20.7**
Technical Secondary School	23.2	24.0	24.1	22.7	21.4	21.2	**21.5**
Full-time Vocational School	23.2	23.4	23.6	23.0	22.4	22.2	**21.7**
Technical School 1)	21.4	22.0	21.9	21.6	20.7	21.2	**21.4**

1) Up to 1983 only Technical Schools within the competence of ministries of education.

Source: Conference of Ministers of Education Secretariat

6. Participants in Foreign Language Lessons (1980, 1983–86)

Participants in foreign language lessons (1980, 1983–86)

	1980	1983	1984	1985	1986
			Primary School		
English	27,341	17,024	15,337	15,024	14,130
French	3,848	2,553	3,889	4,527	4,375
			Secondary Modern [1]		
English	2,145,164	1,803,789	1,632,598	1,500,698	1,363,860
French	41,959	35,767	39,708	42,544	47,459
			Intermediate School		
English	1,340,406	1,206,430	1,124,762	1,042,189	967,952
French	434,180	352,363	330,731	302,253	280,285
Spanish	•	1,819	1,665	1,806	1,694
			Gymnasium		
English	1,927,547	1,779,763	1,678,503	1,582,743	1,501,763
French	933,057	886,355	835,051	783,620	734,659
Spanish	20,813	26,911	26,958	26,933	28,141
Russian	19,241	18,268	17,931	17,914	17,870
Italian	7,080	7,972	9,300	12,183	12,552
Other living languages	3,398	7,592	6,519	4,802	4,933
Latin	821,912	756,103	712,443	660,371	613,239
			Integrated Comprehensive [2]		
English	212,498	216,717	214,856	211,403	230,133
French	74,312	71,892	71,802	70,686	72,412
Spanish	2,578	3,885	3,997	3,809	4,350
Russian	6,164	7,676	8,562	9,394	9,741
Italian	•	315	462	599	658
Other living languages	1,443	1,218	1,391	1,880	1,955
Latin	18,103	16,540	15,778	15,771	16,082

[1] **Inclusive** of autonomous orientation levels.

[2] **Inclusive** of Free Waldorf Schools.

Source: Federal Statistics Office and Conference of Ministers of Education Secretariat

7. Participants in Foreign Language Lessons (1980, 1983–86) (as a Percentage of the Total Number of Pupils)

Participants in foreign language lessons (1980, 1983–86)
as a Percentage of the total number of pupils

	1980	1983	1984	1985	1986
			Primary School		
English	1.0	0.7	0.7	0.7	0.6
French	0.1	0.1	0.2	0.2	0.2
			Secondary Modern 1)		
English	94.4	95.2	95.2	95.4	93.8
French	1.8	1.9	2.3	2.7	3.3
			Intermediate School		
English	99.2	99.3	99.3	99.3	99.2
French	32.1	29.0	29.2	28.8	28.7
Spanish	•	0.1	0.2	0.2	0.2
			Gymnasium		
English	91.0	90.8	90.6	90.4	90.7
French	44.0	45.2	45.1	44.8	44.4
Spanish	1.0	1.4	1.5	1.5	1.7
Russian	0.9	0.9	1.0	1.0	1.1
Italian	0.3	0.4	0.5	0.7	0.8
Other living languages	0.2	0.4	0.4	0.3	0.3
Latin	38.8	38.6	38.5	37.7	37.0
			Integrated Comprehensive 2)		
English	96.5	96.4	97.3	97.2	96.7
French	33.7	32.0	32.5	32.5	30.4
Spanish	1.2	1.7	1.8	1.8	1.8
Russian	2.8	3.4	3.9	4.3	4.1
Italian	•	0.1	0.2	0.3	0.3
Other living languages	0.7	0.5	0.6	0.9	0.8
Latin	8.2	7.4	7.1	7.2	6.8

1) Inclusive of autonomous orientation levels.
2) Inclusive of Free Waldorf Schools.

Source: Conference of Ministers of Education Secretariat

8. Types of Vocational Schools in the Laender

Types of Vocational Schools in the Laender

Year Land	Vocational School											
	Total											Schools Serving the Health Service 1)
		Part-time Vocational Schools	Preparatory Year, Basic Training Year	Vocational Extension Schools	Full-time Vocational Schools	Vocational/Technical Secondary Schools	Technical Upper Schools	Technical Gymnasia	Technical Schools	Technical/Vocational Academies	6th Form College NRW	
	Nationwide											
1960	4,924	2,463	–	–	1,636	●		–	825	–	–	1,200
1965	5,763	2,128	–	668	2,032	●		–	935	–	–	1,450
1970	6,888	1,702	●	595	2,603	5		821	1,162	–	–	1,664
1975	7,670	1,446	793	465	2,766	25		893	1,218	64	–	1,765
1980	8,325	1,583	1,210	493	2,788	27	645	346	1,146	74	–	1,698
1981	8,693	1,653	1,448	488	2,825	27	663	353	1,140	78	18	1,736
1982	8,718	1,640	1,430	477	2,873	27	663	357	1,152	79	20	1,739
1983	7,593	1,450	1,444	420	2,098	27	652	350	1,050	80	22	1,694
1984	8,622	1,711	1,475	372	2,727	28	645	363	1,199	79	23	1,744
1985	7,733	1,720	1,268	333	2,303	28	608	334	1,037	79	23	1,780
1986	7,568	1,512	1,318	298	2,316	28	604	340	1,049	78	25	1,770
	Private Schools											
1986	1,071	153	60	19	449	1	42	10	286	49	2	912
	Laender 1986											
BW	2,170	409	184	44	1,059	6	●	172	296	–	–	226
BA	1,012	264	●	113	270	22	60	–	206	77	–	225
HE	673	118	207	16	117	–	75	40	100	–	–	178
LS	851	143	221	35	184	–	104	63	101	–	–	241
NW	1,372	289	343	25	321	–	218	–	151	–	25	570
RP	461	97	121	30	84	–	50	15	64	–	–	107
SA	223	42	68	13	52	–	26	–	22	–	–	43
SH	341	40	53	12	130	–	21	29	55	1	–	59
BE	147	40	39	–	21	–	18	9	20	–	–	72
BR	99	24	33	4	19	–	11	–	8	–	–	11
HA	219	46	49	6	59	–	21	12	26	–	–	38

1) Not within the competence of ministries of education.

Source: Basic and Structural Data 1987/88

9. Pupils at Different Levels of Vocational Schooling

Pupils at different levels of vocational schooling in thousands

Year	Pupils at							
	Secondary level II							
	Part-time Vocational Schools	Preparatory Year	Basic Training Year		Vocational Extension Schools		Full-time Vocational Schools	Vocational/Technical Secondary Schools
	Part-time	Full-time	Full-time	Part-time	Full-time	Part-time	Full-time	Full-time
1960	1661.9	–	–		–	–	125.7	–
1965	1780.0	–	–		11.4	41.6	148.5	–
1970	1599.4	–	0.5		13.4	27.0	182.7	0.9
1975	1607.3	6.9	22.7		14.1	13.7	270.8	2.7
1980	1847.5	41.7	66.1	14.4	16.1	5.7	325.6	4.0
1981	1808.3	41.9	80.0	16.6	18.7	4.1	334.3	4.7
1982	1771.7	41.6	86.1	17.3	17.6	3.3	356.3	4.7
1983	1792.0	44.3	88.4	18.8	13.4	2.3	356.7	4.4
1984	1858.3	40.6	87.1	17.9	10.2	1.9	347.2	4.0
1985	1893.3	36.0	80.1	15.5	8.3	1.6	339.7	3.6
1986	1857.2	27.8	68.9	18.2	6.8	1.4	318.7	3.9

Source: Basic and Structural Data 1987/88

Continuation of table 9

Pupils at different levels of vocational schooling in thousands

Pupils at									Year
Secondary level II								Schools Serving the Health Service[1]	
Technical Upper Schools		Technical Grammar Schools	Technical Schools		Technical/ Vocational Academies	6th Form College NRW			
Full-time	Part-time		Full-time	Part-time		Full-time	Part-time	Full-time	
–		–	101.8		–	–	–	40.0	1960
–		–	103.9		–	–	–	42.0	1965
50.3		8.1	130.6		–	–	–	61.4	1970
90.1		28.7	100.8	6.3	9.6	–	–	88.5	1975
55.5	23.8	54.5	73.6	11.3	10.1	8.3	18.2	96.7	1980
62.9	27.0	60.7	78.7	13.4	10.5	11.2	25.2	101.1	1981
68.6	26.3	64.0	78.2	13.5	11.3	12.5	28.2	104.2	1982
63.4	23.1	63.3	73.9	14.1	11.4	13.4	34.3	106.2	1983
55.9	22.1	62.0	71.3	16.0	11.5	13.6	37.9	108.8	1984
50.5	24.2	61.1	70.5	20.2	11.5	13.1	39.3	111.7	1985
51.3	24.2	61.6	70.2	20.4	11.2	13.5	45.4	111.2	1986

[1] Not in the sphere of competence of ministries of education. Estimated at up to 2010 in 1987.

10. Classes and Pupil Numbers at Special Schools according to Laender

Classes and pupil numbers at special schools according to Laender

Year Land	Classes and Pupils							
	Total		in classes for					
			Backward		Blind		Deaf	
	Classes	Pupils	Classes	Pupils	Classes	Pupils	Classes	Pupils
	Nationwide							
1970	19,237	322,037	14,031	264,629	254	2,544	796	7,153
1975	27,590	393,800	18,307	305,187	413	3,541	1,081	9,286
1980	29,840	354,316	17,101	244,220	494	4,026	1,378	10,858
1981	29,415	336,980	16,390	226,305	510	4,015	1,386	10,736
1982	28,771	319,254	15,673	209,587	528	3,987	1,355	10,401
1983	28,051	301,902	14,923	193,149	548	4,045	1,333	10,041
1984	27,442	284,594	14,290	177,307	551	3,916	1,292	9,568
1985	26,778	271,424	13,546	163,635	506	3,723	1,249	9,161
1986	26,264	261,461	12,875	152,916	488	3,512	1,188	8,631
	Laender 1986							
BW	4,751	43,731	2,031	23,512	95	593	197	1,278
BA	3,910	38,660	1,680	19,547	58	481	170	1,332
HE	1,911	19,273	932	11,491	47	435	100	730
LS	3,090	28,617	2,023	20,916	53	273	139	986
NW	7,619	84,401	3,632	49,082	140	1,101	324	2,568
RP	1,371	12,606	700	7,966	30	175	79	495
SA	393	3,348	210	2,195	12	67	23	149
SH	1,430	13,634	863	9,518	–	–	37	288
BE	763	7,087	343	3,647	23	129	37	255
BR	363	3,237	183	1,985	7	47	34	210
HA	663	6,867	2 78	3,057	23	211	48	340

Source: Basic and Structural Data 1987/88

Continuation of table 10

Classes and pupil numbers at special schools according to Laender								
Classes and Pupils								Year Land
in classes for								
Linguistically handicapped		Physically handicapped		Mentally handicapped		Behaviourally disturbed		
Classes	Pupils	Classes	Pupils	Classes	Pupils	Classes	Pupils	
							Nationwide	
409	5,663	515	5,499	2,060	20,455	890	12,099	1970
746	9,005	1,029	9,273	4,288	37,769	1,194	13,510	1975
1,292	14,280	1,616	13,348	5,839	47,262	1,553	14,538	1980
1,371	14,937	1,688	13,429	5,928	46,770	1,597	14,656	1981
1,467	15,788	1,712	13,308	5,887	45,909	1,602	14,422	1982
1,543	16,411	1,836	13,962	5,665	43,611	1,590	14,173	1983
1,641	17,143	1,872	14,002	5,535	42,066	1,616	14,079	1984
1,706	17,831	1,884	14,046	5,399	40,792	1,611	13,857	1985
1,794	18,726	1,846	13,544	5,293	39,635	1,618	13,849	1986
							Laender 1986	
395	3,855	480	2,897	1,134	6,991	419	3,424	BW
294	3,283	79	741	867	6,864	165	1,432	BA
91	943	136	854	436	3,043	91	756	HE
108	1,050	171	1,202	449	3,018	147	1,172	LS
505	5,252	613	5,229	1,367	12,763	581	5,188	NW
44	441	146	970	338	2,281	34	278	RP
9	55	27	191	98	599	14	92	SA
111	1,180	53	340	314	1,976	52	332	SH
86	993	57	429	138	948	49	460	BE
34	350	21	137	46	261	38	247	BR
117	1,324	63	554	106	891	28	468	HA

11. Pupils at Different Types of Private General School according to Laender

Pupils at different types of private general school according to Laender

Year Land	Pupils at private general schools								
	Total								
		School Kinder-gartens and Pre-Classes	Primary and Secondary Moderns	Special Schools	Inter-mediate Schools	Grammar Schools	Com-pre-hen-sives	Free Wal-dorf-Schools	Evening Schools and Colleges
	Nationwide								
1960	200,079	•	25,150	13,628	35,255	114,423	–	11,623	•
1965	230,241	535	26,319	15,233	45,798	126,764	–	12,183	3,409
1970	290,347	559	34,588	24,566	55,116	153,645	–	14,800	7,073
1975	355,266	3,155	45,417	34,107	62,630	178,165	1,800	20,200	9,792
1980	420,137	2,469	50,324	41,872	83,028	202,354	2,565	29,612	7,913
1981	424,743	2,551	50,311	41,860	83,923	203,559	2,821	31,546	8,172
1982	424,104	2,699	49,431	41,438	83,231	202,750	3,323	33,459	7,773
1983	421,363	2,639	49,478	41,221	82,214	200,447	3,254	34,860	7,250
1984	414,874	2,749	48,448	40,585	79,636	196,165	3,294	36,875	7,122
1985	408,536	2,968	47,680	40,641	76,639	191,643	3,304	38,727	6,934
1986	403,607	2,904	46,865	40,591	74,388	186,385	3,681	41,746	7,047
	Laender 1986								
BW	62,189	1,425	5,768	8,528	6,373	21,535	–	14,657	3,903
BA	88,860	–	8,718	16,077	33,101	27,068	–	3,523	373
HE	28,840	43	1,531	2,407	2,373	18,739	663	2,858	226
LS	34,947	19	9,290	2,347	4,056	15,211	–	4,024	–
NW	119,729	–	2,087	7,487	19,355	77,467	2,313	8,770	2,250
RP	24,728	–	3,456	1,897	4,215	14,029	–	859	272
SA	6,954	–	845	262	1,096	4,100	–	651	–
SH	9,213	569	3,397	513	1,017	1,360	–	2,357	–
BE	11,744	416	5,017	680	1,126	3,138	309	1,035	23
BR	4,410	17	2,201	100	444	750	396	502	–
HA	11,993	415	4,555	293	1,232	2,988	–	2,510	–

Source: Basic and Structural Data 1987/88

12. Pupils at Different Types of Private Vocational School according to Laender

Pupils at different types of private vocational school according to Laender

Year Land	Pupils at private vocational schools											
	Total											Schools Serving the Health Service¹)
		Part-time Vocational Schools	Preparatory Year, Basic Training Year	Vocational Extension Schools	Full-time Vocational Schools	Vocational/Technical Secondary Schools	Technical Upper Schools	Technical Grammar Schools	Technical Schools	Technical/Vocational Academies	6th Form College NRW	
	Nationwide											
1960	76,879	13,122	–	–	41,030	–	–	–	22,727	–	–	15,000
1965	91,992	15,917	–	3,797	41,822	–	–	–	30,456	–	–	20,000
1970	117,127	21,345	1,600	3,760	42,828	–	1,555	350	45,689	–	–	26,384
1975	134,892	24,655	2,029	2,598	52,401	29	1,815	400	46,022	4,943	–	40,066
1980	126,304	34,609	3,940	2,179	46,369	47	2,941	526	28,926	5,610	1,157	45,226
1981	133,551	36,733	4,075	2,065	47,303	50	2,841	589	32,872	5,828	1,195	48,549
1982	135,160	37,606	3,671	1,575	49,437	47	2,746	650	32,089	6,054	1,285	50,533
1983	134,393	39,736	3,705	1,233	48,939	42	2,548	634	30,033	6,266	1,257	51,137
1984	134,318	40,882	3,758	1,092	48,153	33	2,533	627	29,410	6,453	1,377	52,382
1985	135,124	41,328	3,773	820	47,208	36	2,666	561	30,763	6,570	1,399	53,482
1986	127,639	40,972	3,533	609	43,696	42	2,847	537	27,572	6,483	1,348	52,877
	Laender 1986											
BW	17,362	2,907	–	–	9,407	–	–	343	4,705	–	–	5,486
BA	26,731	6,058	1,121	95	7,948	42	366	–	5,191	5,910	–	5,069
HE	4,804	1,591	218	–	1,134	–	14	152	1,695	–	–	3,662
LS	10,538	289	224	–	6,934	–	510	–	2,581	–	–	7,674
NW	47,678	25,057	1,070	–	12,646	–	1,447	–	6,110	–	1,348	20,723
RP	5,729	877	238	31	2,273	–	31	–	2,279	–	–	4,013
SA	5,618	2,050	302	483	132	–	387	–	2,264	–	–	1,076
SH	2,372	–	27	–	955	–	–	42	775	573	–	1,055
BE	3,602	1,434	110	–	1,077	–	92	–	889	–	–	2,555
BR	1,055	709	223	–	–	–	–	–	123	–	–	1,010
HA	2,150	–	–	–	1,190	–	–	–	960	–	–	554

¹) Not within the competence of ministries of education

Source: Basic and Structural Data 1987/88

13. School-Leavers according to Final Qualifications

School-Leavers according to final qualification in thousands

Year	Leavers after completion of compulsory schooling				Leavers with Intermediate or equivalent qualification		
	Total				Total	from	
		without Secondary Modern qualification		with Secondary Modern Qualification		General Schools	Vocational Schools
1960	468.6	114.0[1]	18.0	354.6[1]	117.2	102.2	15.0[1]
1965	563.2	134.6	27.4	422.8	131.8	93.8	38.0[1]
1970	489.1	140.3	33.2	348.8	200.1	143.9	56.2
1975	461.6	114.6	42.6	347.1	318.0	231.8	86.2
1976	466.5	114.9	43.2	351.6	317.4	225.1	92.3
1977	527.2	123.9	46.4	403.3	335.2	248.7	86.5
1978	537.6	123.4	39.3	414.2	371.0	281.9	89.1
1979	528.7	117.2	38.9	411.5	401.5	310.7	90.8
1980	500.8	109.4	37.7	391.4	422.2	327.8	94.5
1981	454.1	101.0	33.3	353.1	435.9	337.8	98.1
1982	459.5	96.6	31.6	362.9	436.3	347.9	88.4
1983	449.7	90.7	29.5	359.0	443.2	354.3	88.9
1984	427.1	82.9	26.8	344.2	438.7	359.2	79.5
1985	391.6	71.7	24.3	319.9	419.7	348.8	70.9
1986	350.4	65.2	21.9	285.2	393.8	328.0	65.8

[1] Estimation

Source: Basic and Structural Data 1987/88

Continuation of table 13

School-Leavers according to final qualification in thousands

Leavers with university and/or *Fachhochschule* entrance							Leavers after completion of Vocational schooling	Year
Total	from							
	General Schools			Vocational Schools				
	Total	General University Entrance	*Fachhochschule* Entrance	Total	General University Entrance	*Fachhochschule* Entrance[1]		
56.7	56.7	56.7	–	–	–	–	●	1960
50.5	50.5	50.5	–	–	–	–	●	1965
91.5	83.5	83.5	–	8.0	3.7	4.3	523.2	1970
175.0	119.7	115.4	4.3	55.3	10.8	44.5	511.7	1975
199.7	135.8	133.2	2.6	63.9	12.3	51.7	545.6	1976
212.0	149.1	146.0	3.1	62.9	12.7	50.2	543.6	1977
224.1	164.2	156.6	7.6	59.9	13.5	46.4	539.3	1978
193.3[2]	135.0	129.2	5.8	58.3	13.4	44.9	562.0	1979
221.7	159.6	155.1	4.5	62.1	13.4	48.7	612.8	1980
258.4	186.7	181.6	5.1	71.7	15.4	56.3	642.8	1981
286.3	202.6	196.7	5.9	83.7	18.1	65.6	660.1	1982
305.7	214.1	207.6	6.5	91.6	20.1	71.5	652.7	1983
305.0	216.5	210.2	6.3	88.5	20.7	67.8	624.8	1984
298.9	216.2	210.1	6.1	82.7	20.8	61.9	647.8	1985
291.4	211.4	205.7	5.7	79.9	18.8	61.1	687.8	1986

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[1] Inclusive of qualification for specific studies

[2] The decline compared with the previous year resulted from 1966/67 being a short school-year

14. Students according to Type of University (1960–86)

Students according to type of university						
Year 1)	Students					
	Total		Universities	Art Colleges	*Fachhochschulen*	
					Total	independent
	Thousands	Percentage 2)	Thousands			
	Germans and foreigners					
1960	291.1	4.3	238.4	8.5	44.2	–
1965	384.4	6.6	299.7	8.7	76.0	–
1970	510.5	9.5	410.1	10.9	89.5	–
1975	840.8	14.1	680.2	15.4	145.2	2.9
1976	877.3	14.7	705.0	15.3	157.1	5.1
1977	913.3	15.0	732.7	15.4	165.4	10.2
1978	945.9	15.2	756.9	16.2	172.8	13.4
1979	983.6	15.3	784.2	17.0	182.4	18.2
1980	1044.2	15.9	823.9	18.3	202.0	27.0
1981	1121.6	16.4	877.9	19.1	224.7	32.3
1982	1203.1	17.1	931.9	19.9	251.4	35.2
1983	1273.2	17.8	976.6	20.4	276.1	34.5
1984	1314.2	18.0	1001.1	21.0	292.1	33.4
1985	1338.0	18.1	1015.1	21.7	301.3	32.4
1986	1367.7	18.3	1033.2	22.0	312.5	33.1
	Germans					
1960	269.3	•	218.6	7.7	43.0	–
1965	357.8	•	276.9	7.6	73.3	–
1970	482.1	•	386.8	9.4	85.9	–
1975	792.1	14.7	640.9	13.1	138.0	2.9
1976	827.4	15.1	665.1	13.1	149.2	5.1
1977	862.1	15.4	691.4	13.2	157.4	10.2
1978	893.7	15.6	715.5	14.0	164.2	13.4
1979	927.0	15.7	739.1	14.7	173.2	18.2
1980	986.3	16.2	777.7	16.0	192.6	27.0
1981	1059.6	16.9	828.7	16.8	214.1	32.3
1982	1136.9	17.6	879.4	17.5	240.0	35.2
1983	1203.6	18.2	921.9	18.1	263.5	34.5
1984	1242.2	18.5	944.8	18.7	278.8	33.4
1985	1263.7	18.6	956.9	19.3	287.5	32.4
1986	1290.5	18.9	972.5	19.7	298.3	33.1

1) Winter semester

2) As a percentage of the 19–26 age-group

Source: Basic and Structural Data 1987/88

15. First-Year Students according to Type of University (1960–86)

First-Year students according to type of university

Year[1]	First-Year Students					
	Total					
			University	Art College	*Fachhochschulen*	
					Total	independent
	Thousands	Percentage[2]	Thousands			
	Germans and foreigners					
1960	79.4	7.9	60.0	2.6	16.8	–
1965	85.7	13.3	61.3	2.5	21.9	–
1970	125.7	15.4	91.6	3.4	30.5	–
1975	166.6	19.5	119.9	2.8	43.8	1.4
1976	168.1	19.1	119.0	2.6	46.5	3.0
1977	165.5	18.3	118.2	2.7	44.5	3.6
1978	172.5	18.4	125.3	3.3	43.9	4.3
1979	177.7	18.2	125.2	3.0	49.6	7.8
1980	195.0	19.1	135.6	3.1	56.3	11.5
1981	216.6	20.9	151.5	3.0	62.1	11.1
1982	225.1	21.3	155.2	3.1	66.8	10.6
1983	233.0	21.5	160.1	2.9	69.9	9.7
1984	221.3	20.6	151.5	2.9	66.9	9.1
1985	207.7	19.5	141.3	3.0	63.4	9.9
1986	210.8	20.2	142.7	2.7	65.4	10.4
	Germans					
1960	74.2	•	55.6	2.3	16.3	–
1965	80.3	•	57.4	2.1	20.8	–
1970	119.8	•	87.5	2.9	29.4	–
1975	155.9	19.6	111.8	2.3	41.8	1.4
1976	157.4	19.0	110.8	2.1	44.5	3.0
1977	154.7	18.2	109.8	2.2	42.6	3.6
1978	161.4	18.3	116.9	2.6	41.9	4.3
1979	165.3	18.1	115.6	2.5	47.3	7.8
1980	183.2	19.5	126.3	2.6	54.2	11.5
1981	203.7	21.2	141.5	2.6	59.6	11.1
1982	211.9	21.6	145.0	2.6	64.3	10.6
1983	219.7	21.9	149.9	2.5	67.3	9.7
1984	207.0	20.8	140.1	2.4	64.4	9.1
1985	192.9	19.7	129.3	2.4	61.2	9.9
1986	196.7	20.5	131.2	2.3	63.2	10.4

[1] The summer and following winter semester

[2] As a percentage of the 19–21 age group

Source: Basic and Structural Data 1987/88

16. Qualification for University in Relation to Fathers' Employment and Education (1975–83)

Qualification for university in relation to fathers' employment and education in percentage

Vocational status/ School qualification	Year of qualification for studies							
	1975/1976		1977/1978		1979/1980		1982/1983	
	Male	Female	Male	Female	Male	Female	Male	Female
Father's Vocational status								
Owner of a small business	11	9	9	9	8	9	9	9
Owner of a medium-sized business	6	8	6	7	6	8	6	7
Owner of a large business	1	1	1	1	1	1	1	1
Free professions	4	5	4	5	4	5	4	5
Salaried Staff	3	3	3	3	3	3	3	3
Highly-qualified Salaried Staff	16	15	16	16	16	16	17	16
Administrative Salaried Staff	17	18	18	18	18	18	18	17
Middle-level Civil Servant	5	6	6	5	6	5	5	5
Executive Civil Servant	7	8	7	8	7	7	7	7
Top Civil Servant	6	8	7	9	7	8	6	8
Worker	8	6	8	5	7	6	6	6
Skilled Worker	14	12	13	11	14	13	14	13
Others	2	2	2	2	2	2	4	3
Total	100	100	100	100	100	100	100	100
Father's highest educational qualification								
University	14	18	16	19	16	18	15	17
Fachhochschule [1]	9	10	8	12	9	11	10	11
Grammar School	7	8	7	7	6	6	6	6
Intermediate School	14	15	14	14	15	16	15	15
Elementary School	52	46	50	43	49	45	48	44
None or no details	4	4	5	6	6	5	6	6
Total	100	100	100	100	100	100	100	100

[1]) Including completion of courses at engineering schools and the precursors of *Fachhochschulen*
Source: University Information System, Hanover

Source: Basic and Structural Data 1987/88

17. Further Education: Colleges of Adult Education – Centres, Staffing, Attendance according to Laender (1965–86)

Further education: colleges of adult education – centres, staffing, attendance according to Laender

Year Land	Colleges of Adult Education						
	Centres[1]	Courses	Attendance	Individual events[2]		Staff[3]	
				Total	Attendance	Total	Teachers
	Number		Thousands	Number	Thousands	Number	
	Nationwide						
1965	5,870	77,837	1,695.7	66,000	5,086.7	28,100	13,500
1970	5,237	109,881	2,227.3	60,849	3,736.3	41,700	21,100
1971	5,089	126,245	2,540.6	57,362	3,666.4	44,980	23,540
1972	4,775	145,754	2,868.2	56,613	3,657.7	51,211	27,840
1973	4,636	165,857	3,212.4	61,180	3,764.1	59,253	31,140
1974	4,494	181,763	3,458.1	60,612	3,834.7	65,442	34,769
1975	4,289	195,546	3,761.0	64,766	3,748.0	71,704	38,067
1976	4,264	210,805	3,770.5	55,841	3,392.2	78,608	40,916
1977	5,021	224,831	3,757.5	53,307	2,675.4	84,815	40,055
1978	5,388	253,199	4,144.1	60,305	3,227.4	99,573	47,611
1979	4,905	280,488	4,411.6	62,981	3,355.2	106,568	46,673
1980	4,817	301,444	4,633.0	68,091	3,411.7	118,007	50,260
1981	4,906	308,380	4,676.8	69,517	3,668.0	117,768	47,954
1982	5,050	303,215	4,551.9	67,704	3,278.2	118,244	29,841
1983	4,919	311,427	4,606.6	67,829	3,227.5	117,644	27,407
1984	4,834	327,167	4,773.5	72,106	3,521.2	122,269	34,207
1985	4,801	334,993	4,826.3	74,364	3,365.7	126,947	35,537
1986	4,683	360,463	5,184.3	73,436	3,424.4	134,115	36,345
	Laender 1986						
BW	1,039	64,835	888.2	15,801	719.3	22,202	7,267
BA	1,269	73,553	1,053.4	21,021	1,027.0	24,682	4,979
HE	483	36,875	489.2	3,860	226.2	13,209	2,939
LS	562	47,047	638.3	3,779	150.4	20,521	5,538
NW	444	76,504	1,172.2	16,272	648.1	31,378	9,455
RP	513	20,077	273.8	5,474	302.3	7,435	2,585
SA	87	5,157	78.8	1,332	84.4	1,763	957
SH	258	17,678	255.7	4,017	207.6	7,217	1,845
BE	14	13,799	244.5	1,704	53.0	3,408	277
BR	6	2,343	37.1	75	1.6	1,052	184
HA	8	2,595	83.6	101	4.3	1,248	208

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1) Main centres and outlying branches

2) Including series of lectures

3) Without the presenters of individual events

Source: Basic and Structural Data 1987/88

18. Grundschule (Primary School) Schedule (Bavaria)

Classes	1.	2.	3.	4.
Religion	2	3	3	3
Basic studies			–	–
German	17	17	7	7
Mathematics			5	5
Local History and Geography			4	4
Music and Movement			–	–
Art			1	1
Music	–	–	2	2
Textiles/Crafts	1	2	2	2
Sport	2	2	2+2[1]	2+2[1]
Special Coaching	2	1	1	1
Total no. of lessons	24	25	27+2[1]	27+2[1]

[1] Number of lessons taught

The number of obligatory lessons is at the same time the highest number of lessons taught – provided that a pupil does not have to attend a course for those with particular difficulties in learning reading and writing, or special lessons for the linguistically handicapped, special coaching in German, complementary lessons in other mother tongues, or additional instruction in sport.

In the 3rd or 4th classes there are two additional compulsory basic sports lessons, taking into account the staff, space, and organisational facilities available.

19. Comparative Overview of Secondary Level I Schedules at Hauptschule (Secondary Modern), Realschule (Intermediate School), and Gymnasium (Grammar School) (North Rhine-Westphalia)

Comparative overview of Secondary Level I schedules at Secondary Modern (S), Intermediate School (I), and Grammar School (G)

	Subject	Class 5			Class 6			Class 7			Class 8			Class 9			Class 10			Total		
		S	I	G	S	I	G	S	I	G	S	I	G	S	I	G	S	I	G	S	I	G
1.	Compulsory subject																					
1.1	German	5	4	4	5	4	4	4	4	4	4	4	4	4	4	3	4	4	3	26	24	22
1.2	Social Studies	3	3	3	4	4	4	3	4	4	3	4	4	4	4	4	3	4	4	20	23	23
1.3	Mathematics	4	4	4	4	4	4	4	4	4	4	4	4	4	4	3	4	4	3	24	24	22
1.4	Natural Sciences	4	4	4	3	3	3	3	4	3	3	4	3	2	4	5	4	4	5	19	23	23
1.5	Foreign Languages	5	5	5	5	5	5	4	4	8	4	4	8	3	4	6	3	4	6	24	26	38
1.6	Work Studies (Technology) (Economics/Domestic Science)	–	–	–	–	–	–	3	–	–	3	–	–	2	–	–	4	–	–	12	–	–
1.7	Music/Art/Crafts/ Textiles	3	4	4	3	4	4	3	3	3	3	3	3	2	4	2	2	4	2	16	22	18
1.8	Religion	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	12	12	12
1.9	Sport	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	18	18	18
2.	Options	–	–	–	–	–	–	2	3	–	2	3	–	3	3	4	3	3	4	10	12	8
3.	Orientation	1	1	1	1	1	1	–	–	–	–	–	–	–	–	–	–	–	–	2	2	2
4.	Coaching	–	–	–	–	–	–	–	–	–	–	–	–	3	–	–	3	–	–	6	–	–
	Total	30	30	30	30	30	30	31	31	31	31	31	31	32	32	32	32	32	32	186	186	186

20. Hauptschule (Secondary Modern) Schedule (Bavaria)

Class	5.	6.	7.	8.	9.
1. Compulsory					
1.1 Religion	2	2	2	2	2
1.2 German	6	6	6	5	5
1.3 English	4	4	3	–	–
1.4 Mathematics	5	5	5	5	5
1.5 Physics/Chemistry	–	2	2	2	2
1.6 Biology	2	1	1	1	1
1.7 History	1	1	2	2	2
1.8 Geography	2	1	1	1	1
1.9 Personal Values	–	–	–	1	1
1.10 Social Studies	–	–	–	1	1
1.11 Work Studies	–	–	1	2	2
1.12 Domestic Science	–	–	2	–	–
1.13 Sport	2+2[1]	2+2[1]	2+2[1]	2+2[1]	2+2[1]
1.14 Music	2	2	1	1	1
1.15 Art	2	2	–	–	–
Totals	28+2[1]	28+2[1]	28+2[1]	25+2[1]	25+2[1]
2. Options among compulsory subjects					
2.1 English	–	–	–	3	3
2.2 Art	–	–	2	2	2
2.3 Crafts	2	2	2	–	–
2.4 Crafts/Technical	–	–	–	3	3
2.5 Textiles	2	2	2	2	2
2.6 Domestic Science	–	–	–	3	3
2.7 Typing	–	–	–	2	2
Totals	2	2	2	4/5/6	4/5/6
3. Options					
All subjects in section 2	–	–	2	2/3	2/3
Shorthand	–	–	–	2	2
Information Studies	–	–	–	2	2
Totals	–	–	2	2/3	2/3

4. Study-Groups

One to two-hour study-groups – irrespective of class or age – can be arranged if they provide instruction and character-training; and the staff, space, and organisational facilities are available.

5. Lessons in Mother Tongues

Pupils with non-German mother tongues (Greek, Italian, Portuguese, Serbo-Croat, Spanish, Turkish) are offered additional lessons in those languages. They can also be offered instead of English.

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[1] There are two lessons of differentiated sport, staffing, space, and organisational facilities permitting.

21. Realschule (Intermediate School) Schedule (Bavaria)

Schedule for Classes 7–10

Classes	7	8	9	10
A. Compulsory subjects				
Religion	2	2	2	2
German	4	4	4	4
English	4	4	3	3
History	2	2	2	2
Geography	2	2	2	–
Economics and Law	–	–	2	1
Social Studies	–	–	–	1
Mathematics	4	*	*	*
Chemistry	–	–	2	2
Biology	2	2	–	1
Personal Values	–	–	–	1
Sport	2+2	2+2	2+2	2+2
Music	1	1	1	1
Arts, Crafts, or Textiles	3	–	–	–
Domestic Science	2	–	–	–
Typing	2	–	–	–
	30+2	19+2	20+2	20+2
B. Options among compulsory subjects I				
Mathematics		4	5	5
Physics		3	3	3
Technical Drawing		2	2	2
Typing		2	–	–
		30+2	30+2	30+2
Options among compulsory subjects II				
Mathematics		3	3	3
Physics		2	2	2
Accountancy		2	3	3
Economics and Law		2	–	–
Shorthand		1	1	2
Typing		1	1	–
		30+2	30+2	30+2

Continuation of table 21

Schedule for Classes 7–10

Classes	7	8	9	10
Options among compulsory subjects III				
Mathematics		3	3	3
Physics		2	2	2
Typing		2	–	–
Art or Crafts or Domestic Science or Social Studies		2	3	3
Additional subject		2	2	2
		30 + 2	30 + 2	30 + 2

C. **Options** (1 to 3 lessons)

1. **From class 7**
   - Choral singing
   - French
   - Instrumental Music
   - Art
   - Orchestra
   - Theatre
   - Additional Sport/Gymnastics
   - Textiles
   - Crafts
   - Lessons in a Mother-Tongue for foreign pupils
2. **From class 8:**
   - Biology (practicals)
   - English (conversation)
   - French (conversation)
   - Domestic Science
   - Information Studies
   - Shorthand
   - Mathematics (for pupils from options III with Accountancy)
   - Physics (practicals)
   - Accountancy
   - Photography
   - Technical Drawing
3. **From class 9**
   - Chemistry (practicals)
   - Typing

22. Altsprachliches Gymnasium (Classics-Oriented Grammar School) Schedule (Baden-Württemberg)

Classics-orientated Grammar School

	Class						
Subject	5	6	7	8	9	10	11
Religion	2	2	2	2	2	2	2
German	5	6	4	4	3	3	3
Geography	3	2	2	2			1
History			2	2	2	2	2
Community Studies						2	2
Latin	6	6	5	5	4	3	3
English			4	5	3	4	3
Greek					6	4	5
Mathematics	4	5	4	5	3	3	4
Physics				2	2	1	2
Chemistry					2	2	2
Biology	2	2	2	2		2	1
Sport	3	3	3	3	3	3	2
Music	3	2	2	1	1		2
Visual Arts	2	2	2		1	2	1
Ethics[1]				(2)	(2)	(2)	(2)
	30	30	32	33	32	33	35

Study-groups

Coaching: two lessons a week in classes 5 and 6. Participation in coaching or study-groups should not usually increase the prescribed number of lessons by more than three. In class 11 preparatory courses in the form of study-groups with two lessons a week can be offered in mathematics. There is normally a minimum of ten participants.

Subjects with just one lesson a week can also be taught twice weekly for half a year.

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[1] For pupils who do not take religion

23. Neusprachliches Gymnasium (Modern Languages-Oriented Grammar School) Schedule (Baden-Württemberg)

Modern Languages-Oriented Grammar School

	Class						
Subject	5	6	7	8	9	10	11
Religion	2	2	2	2	2	2	2
German	5	6	4	4	3	3	3
Geography	3	2	2	2			1
History			2	2	2	2	2
Community Studies						2	2
English/French	5	5	4	5	4	3	3
English/French/Latin Russian			5	5	4	4	3
French/Latin/Russian					6	4	5
Mathematics	4	5	4	5	3	3	4
Physics				2	2	1	2
Chemistry					2	2	2
Biology	2	2	2	2		2	1
Sport	3	3	3	3	3	3	2
Music	3	2	2	1	1		2
Visual Arts	2	2	2		1	2	1
Ethics[1]				(2)	(2)	(2)	(2)
	29	29	32	33	33	33	35

Study-groups

Coaching: two lessons a week in classes 5 and 6. Participation in coaching or study-groups should not usually increase the prescribed number of lessons by more than three. In class 11 preparatory courses in the form of study-groups with two lessons a week can be offered in mathematics and a third foreign language. There is normally a minimum of ten participants.

Subjects with just one lesson a week can also be taught twice weekly for half a year.

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[1] For pupils who do not take religion.

24. Mathematisch-Naturwissenschaftliches Gymnasium (Science-Oriented Grammar School) Schedule (Baden-Württemberg)

Science-Oriented Grammar School

	Class						
Subject	5	6	7	8	9	10	11
Religion	2	2	2	2	2	2	2
German	5	6	4	4	4	4	4
Geography	3	2	2	2			2
History			2	2	2	2	2
Community Studies						2	2
English/French	5	5	4	5	4	3	3
English/French/Latin/ Russian			5	5	4	4	4
Mathematics	4	5	4	5	5	5	4
Physics				2	2	2	3
Chemistry					2	2	2
Biology	2	2	2	2		2	2
Sport	3	3	3	3	3	3	2
Music	3	2	2	1	2		2
Visual Arts	2	2	2		2	2	1
Ethics[1]				(2)	(2)	(2)	(2)
	29	29	32	33	32	33	35

Study-groups

Coaching: two lessons a week in classes 5 and 6. Participation in coaching or study-groups should not usually increase the prescribed number of lessons by more than three. Subjects with just one lesson a week can also be taught twice weekly for half a year.

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[1] For pupils who do not take religion.

25. Extension Grammar School (with boarding facilities) Schedule (Baden-Württemberg)

Extension Grammar School (with boarding facilities)

	Class			
Subject	8	9	10	11
Religion	2	2	2	2
German	5	5	4	4
Geography	2			2
History	2	2	2	2
Community Studies			2	2
English	6	5	4	4
French/Latin/Russian		5	4	4
Mathematics	6	4	3	4
Physics	2	2	2	2
Chemistry		2	2	2
Biology	2		2	2
Sport	3	3	3	2
Music	2	2	2	2
Visual Arts	2	2	2	2
Ethics[1]	(2)	(2)	(2)	(2)
	34	34	34	36

Instrumental lessons

Study-groups

Coaching: two lessons a week in classes 8 to 10.
Participation in coaching or study-groups should not usually increase the prescribed number of lessons by more than three. In class 11 a preparatory course in the form of a study-group (two lessons a week) can be offered in a second foreign language and mathematics.

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[1] For pupils who do not take religion.

26. Berufsschule (Part-Time Vocational School) Schedule (Lower Saxony)

Vocational School with Part-Time or Block Teaching

Generalities

If a subject is not taught (or only part-time), teaching hours can be correspondingly increased in other curriculum lessons. In all cases where schedules involve up to 9 lessons a week, such teaching should be on a **single** day. If the schedules envisage part-time teaching, this can also – after consultation with the representatives of public interest in such vocational training – take the form of full-time lessons involving interlinked sections (block instruction). In technology lessons the teacher for current practice can be called on for demonstrations – half a lesson per class per week. Such instruction can, if need be, be grouped as a block.

Schedule for Part-Time Vocational School if no special regulations apply

Subjects	No. of weekly lessons Basic and specialised
German	1
Community Studies	1
Sport	0.5
Religion	0.5
Technology Technical Mathematics Technical Drawing	6[1]
Lessons per week	9

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[1] The school lays down the number of lessons in individual subjects in accordance with the relevant guidelines or the demands of specific training jobs. In trades where technical drawing is not part of the training, this subject is dropped.

27. Schedule for the Year of Basic Vocational Training – Specialising in Economics and Administration (Lower Saxony)

Year of Basic Vocational Training (Part-Time Vocational School) Economics and Administration

Subject	No. of weekly lessons			
	1st half-year		2nd half-year	
General Instruction				
German	2		2	
Community Studies	2		2	
Sport	2		2	
Religion	1		1	
		7		7
Vocational Instruction				
Business Studies	6		4	
Economics	3		3	
Accountancy	2		2	
Mathematics	3		3	
Data Processing	2		2	
Correspondence	2		–	
Office Technology	4		–	
Typing	4		–	
		26		14
Specialisation A *Sales and Customer Advice*				
Economic Law	–		4	
Sales	–		4	
Advertising	–		4	
		–		12
Specialisation B *Office Economics and Business Administration*				
Economic Law	–		4	
Office Technology	–		4	
Typing	–		4	
		–		12
Specialisation C *Law and Public Administration*				
Law	–		6	
Administration	–		6	
		–		12
Additional Instruction				
Options		3		3
No. of lessons per week		36		36

28. Schedule for Two-Year Berufsfachschule (Full-time Vocational School) – Business Studies (Lower Saxony)

Schedule for Full-Time Vocational School – Business Studies

	No. of weekly lessons					
Specialisation	Foreign Languages and Correspondence		Secretarial and Correspondence		Information Studies	
Subject	Cl. I	Cl. II	Cl. I	Cl. II	Cl. I	Cl. II
General Instruction						
German	2	2	2	2	1	1
Community Studies	2	2	2	2	2	2
Sport	2	2	2	2	1	1
Religion	1	1	1	1	1	1
Vocational Instruction						
Business Management and Economics	3	3	3	3	5 1)	5 1)
Accountancy/Mathematics	2	2	2	2	6 1)	6 1)
English	8	6	3	3	3	3
Second Foreign Language: (French, Spanish or Italian) 2)	5	5	–	–	–	–
Correspondence	–	–	3	3	–	–
Organisation/Data-Processing	–	–	2	2	–	–
Office Technology	1	1	2	2	–	–
Typing	3	3	4	5	–	–
Shorthand, German	3	3	6	5	–	–
Shorthand, English	–	2	–	–	–	–
Organisation of Data-Processing	–	–	–	–	4	2
Systems Analysis 1) 3)	–	–	–	–	2	4
Programming 1)	–	–	–	–	4	4
Office Communication/ Information Processing 1)	–	–	–	–	2	2
Text Processing/Typing 1)	–	–	–	–	3	3
No. of lessons per week	32	32	32	32	34	34

1) Exercises in data-processing should be conducted in this subject.

2) Only one language can be offered as a second foreign language. At places where this course involves a single stream, two foreign languages can be taught if there are at least 8 pupils for the language concerned.

3) In-firm practical training lasting a total of four weeks is introduced to promote knowledge and skills in systems analysis.

29. Schedule for Two-Year Berufsfachschule (Full-Time Vocational School) – Business and Trade (Schleswig-Holstein)

Schedule for Two-Year Full-Time Vocational School

	Hours per week Lower Level	 Upper Level
Community Studies	2	2
Religion or Philosophy	1	1
Sport	2	2
German with Correspondence	4	4
Business English	4	4
Business Management	5	5
Accountancy	4	4
Business Mathematics	3	3
Business Geography	2	2
Text-Processing	3	3
total	30	30

30. On the 1978 Controversy over Educational Objectives. Theses and Counter-Theses

"Courage to Educate", a forum organised by well-known scholars and politicians, was held at the Science Centre in Bad Godesberg on 9–10. 1. 1978. The papers and theses presented attracted great media attention. Two months later (8–10. 3. 1978), the German Education Society, grouping some 700 scholars, met at Tübingen for its sixth congress. A number of scholars presented a declaration countering the "Courage to Educate" theses, which was signed by many of the congress participants. The Nine Theses and the Tübingen Declaration make very clear what very diverse attitudes exist with regard to educational objectives.

I. The Nine Theses

1. We oppose the mistaken idea that the maturity which school is supposed to bring about lies in the ideal of a future society based on complete liberation from all conditions determined by social origins. The truth is that the only maturity which the school can promote within existing social circumstances is the maturity of those who ultimately outgrow the authority of the teacher. After all, if the school made the maturity of future humanity into an educational ideal, it would declare us to have been less than mature citizens throughout our lives and into the future.
2. We oppose the mistaken idea that the school can teach children to become happy by encouraging them to raise "claims to happiness". The truth is that the school thus frustrates children's happiness and makes them neurotic. After all, happiness does not result from the satisfaction of demands but develops in the course of doing what is right.
3. We oppose the mistaken idea that the virtues of diligence, discipline, and order have become educationally obsolete because they have turned out to be open to political misuse. The truth is that these virtues are needed whatever the political situation. After all, their necessity arises out of human needs rather than those of any specific system.
4. We oppose the mistaken idea that school can give children "critical capacity", by educating them to leave nothing unquestioned. The truth is that school thus drives children into the arms of those who as ideological know-alls raise absolute claims. After all, only someone whose education leads him to concur with the existent is capable of critical resistance and scepticism in the face of such tempters.
5. We oppose the mistaken idea that the school's task is to guide children towards "looking after their own interests". The truth is that the school thus delivers children into the hands of those who know how to interpret such interests for their own political advantage. After all, you must first be introduced to the life-circumstances where your own interests begin to form before you can look after these interests.

6. We oppose the mistaken idea that equality of educational opportunities promotes the equality of those who wish to educate themselves by making use of these opportunities. The truth is that equality of opportunity always entails unequally distributed possibilities of its utilisation, and this inequality, the consequence of implementation of equality of opportunity, must be recognised, politically and morally. After all, without such recognition equality of opportunity destroys the civic and human solidarity of those it was intended to benefit.
7. We oppose the mistaken idea that reforms, which society does not wish to initiate by way of its political institutions, can be introduced by way of the school. The truth is that the school and its pupils are thus isolated from society. After all, no society can recognise a school as being part of itself if pupils are taught to view themselves as belonging to a completely different society.
8. We oppose the mistaken idea that an increasingly theoretical emphasis in teaching is the educational answer to the challenge of our scientific civilisation. The truth is that this hinders the education of the individual towards acquiring the ability to orient himself within this scientific civilisation on the basis of data and criteria which are accessible to his own experience. After all, even the later learning of a science presupposes competences that cannot be gained at school by way of reception of scientific information.
9. We oppose the mistaken idea that optimal education entails maximally institutionalised and professionalised education. The truth is that education is not primarily a vocational activity in any culture. After all, our schools can only make their special contribution to the education of our children if they also share the same cultural assumptions which we were all brought up to recognise both before going to school and beyond its walls.

Hermann Lübbe
Robert Spaemann
Hans Bausch

Golo Mann
Wilhelm Hahn
Nikolaus Lobkowicz

Bonn – January 10th 1978

Published in: Mut zur Erziehung. Beiträge zu einem Forum am 9./10. Januar 1978 im Wissenschaftszentrum Bonn-Bad Godesberg. Stuttgart: Klett-Cotta 1979, p. 163.f.

II. Tübingen Declaration on the Theses put forward at the Bad Godesberg "Courage to Educate" Forum on January 10th, 1978

In recent years, plans and programmes for educational reform have aroused great hopes among large sections of the public. Today delaying tactics prevail, and teachers, children, and parents feel they have been let down.
It is in this situation that a number of theses on educational policy and practice, headed "Courage to Educate", are put forward, proclaiming a turn towards conservatism.

Each of these theses starts "We oppose the mistaken idea ...", and continues "The truth is ...". That entails dogmatic assertion of *true* and *false* rather than assessment of the pros and cons or rational argumentation. The authors of these theses present their political objectives as truth, and label as falsehood what they attribute to people who think differently.

The concepts of happiness, maturity, and equality attacked in these theses have belonged since the Enlightenment to the fundamental guidelines in our society and education. In the theses these concepts are viewed completely one-sidedly, torn out of their original contexts, and thus politically and morally discredited. Courage to educate is at present being called for in the sense of educators demanding of children that they accept authority and adopt established attitudes. Courage to educate is, however, needed to an even greater extent where an *area of freedom* is opened up and *responsibility* expected of children, and where the intention is that they should be led towards *their own solutions*. The theses ignore this second aspect, thus encouraging educational practices that no longer accord with our democratic system.

As scholars committed to the fundamental democratic values of our constitution, we therefore believe we have a duty to put forward arguments countering the forum theses.

On thesis 1

This thesis confuses the problem of intellectual tradition and maturity with the social problems entailed in social classes and mobility. Many pupils and parents do see the school as primarily an instrument for the establishment and safeguarding of social demands, and hope to gain social and vocational advantages from higher education. Education and training aiming at self-reliant maturity cannot, however, be limited to satisfaction of demands for legitimations.

Maturity in the Enlightenment sense does nevertheless demand the overcoming of those conditions determined by social origins that prevent people from being self-reliant, but that in no way entails the rejection of all traditions. This distinction, which must be made time and again, is all-important.

The Enlightenment linked its educational ideal with hopes of future humanity because in the prevailing circumstances complete realisation of civil liberty did not seem possible, and humane ways of life were increasingly threatened through industrial development. It is unacceptable that the moral, political, and educational impetus of the Enlightenment should now be called into question with the bogus argument that the ideal of future maturity entails declaring present society to be less than mature.

For us it goes without saying that we should work for the democratic future of this society where access to knowledge and training is not circumscribed by the social circumstances in which children are born and grow up.

On thesis 2

It is correct that happiness cannot be achieved or increased by way of claims to happiness. These claims to happiness are, however, suggested to the public by today's patterns of consumption and advertising. It would be absurd to make the school responsible for that. It is much more the case that the school has attempted – within the limited possibilities available to it – to educate children in criticism of such ideas about and claims to happiness.

Whether the school itself can contribute to children's happiness is another question. We believe it desirable to work towards development of a school where children, young people, teachers, and parents can also experience happiness in a diversity of forms. Acceptance of nothing but the happiness arising out of fulfilment of duty would entail an unjustifiable restriction.

On thesis 3

We know about disciplinary problems in many schools and classes. We do not, however, believe that a call for more diligence, discipline, and order solves these problems. Those virtues of diligence, discipline, and order have often been accorded one-sided precedence over others such as community, truthfulness, readiness to help, etc. Political abuse became possible as a result of this absolutist claim. In view of that, we oppose denunciation of criticism of such abuse as entailing criticism of the virtues themselves.

We observe, however, with great concern that many young people are increasingly ready – in the face of unemployment and restrictions on university entrance – to fall uncritically and subordinately into line instead of seeking realistic and rationally justifiable rules for human relations. The general lack of jobs, training possibilities, and study-places, which is the crucial problem for many young people, is not overcome by stressing diligence, discipline, and order at school.

On thesis 4

Critical ability involves the ability to form judgements, and not a fundamental rejection of existing values and institutions as this thesis implies. Capacity for judgement entails understanding the significance of and the limits to the existent.

We know how difficult it is to be simultaneously critical and conscious of responsibility, and to educate people in such attitudes. We oppose, however, the attempt to generally discredit education in critical capacity by stating that there are always preestablished factors which are accepted without questioning. If young people are to experience the meaning of the existent, more possibilities of responsible and socially significant action must be opened up for them. That is why schools must not increasingly become places for bureaucratised learning and cramming. Blame for that cannot, however, be put on teachers, parents, and pupils. It is instead much more the case that some of the makers of educational policy who today call for "Courage to Educate" contributed considerably to the fact that more attention is paid in our schools to administrative solutions than to educational principles.

On thesis 5

We know that the way from egoistic to responsible behaviour is a long one. Behaviour where one's own needs and interests are viewed self-critically must therefore be practised – and practised at school too.

We thus oppose the accusation that from the very start we have no desire to see and take into account children's interests and needs. One does not need to have completed training and to have grown up before being able and permitted to develop one's own interests. It is much more the case that these interests develop whilst learning and grappling with one's own life-situation.

We also see the problem caused by the many egoistic children and adults who insist on implementation of their interests. This behaviour is an indication that their initial wishes and needs were either rejected in what was for them an inexplicable fashion, or were always fulfilled with mistaken indulgence. In neither case were their needs realistically assessed.

But children have a right to be taken seriously. Anyone who generally disputes their capacity to express individual interests and needs deprives them of the possibility of putting these forward, and of co-ordinating them with realities and the interests of others.

On thesis 6

It is indisputable that realisation of equality of opportunity in the educational sphere does not signify equal utilisation of opportunities by everyone, and to that extent entails "unequally distributed possibilities of its utilisation". So too is the fact that inequality resulting from realisation of equality of opportunity must be recognised, politically and morally.

We oppose, however, the implied assumption that equality of opportunity has already been realised, and that the associated political and educational objectives and endeavours have now become superfluous. This argument is also deceptive in that a hypothetical premiss ("realised equality of opportunity") is surreptitiously linked with an actual consequence (recognition of inequality), and implicity advocates acceptance of existing inequalities in training and social opportunities as being justified even though these are the outcome of completely different inequalities and forms of selection. A call for solidarity in such circumstances is an expression of interests contrary to solidarity.

We are of the opinion that endeavours on behalf of equality of opportunity constitute a *continuous* task, both politically and educationally. Anyone who invokes civic and human solidarity should be the first to set about its implementation.

On thesis 7

The school certainly cannot introduce reforms that "society does not wish to initiate by way of its political institutions". The school reforms which started during the past decade and then came to a halt were, however, a clear expression of a social desire for reform resulting from recognition that a school system with yesterday's hierarchical structures cannot provide the school for this society's future. It is no coincidence that those who signed the "Courage to Educate" declaration were themselves intensively involved in reforms a few years ago.

At a time when the school's task is claimed to involve teaching its pupils to view this society as their own and open to responsible development, it is particularly important that the school should not be isolated from controversies about future possibilities within this society.

On thesis 8

An increasingly theoretical emphasis in teaching is certainly not the educational answer to the challenge of our scientific civilisation. It is not the spirit of scientific questioning that is increasingly making its way at schools but rather the verbalism of a conceptual abstraction, which no longer entails experience and merely further intensifies the old school malaise of disconnected and demotivating learning of facts. It would, however, be a cause for concern if the banning of theoretical work from school should result in everyday structures and relationships, impenetrable to immediate experience, being left inaccessible to insight, reflection, and criticism. If the thesis should mean that, an educationally meaningful demand would be politically perverted in a fatal fashion.

We oppose any attempt at formulation of a programme which endeavours to maintain political and social peace through curtailment of capacity for insight – in the name of educational values as so often in the history of modern schooling.

On thesis 9

No-one supports the "mistaken view" that professional and institutionalised education could or should replace parental education or work against their "cultural assumptions".

With this insinuation the authors irresponsibly strengthen an existing – and, in view of increasing bureaucratisation of the school, understandable – parental distrust of public education. They do not pursue the causes of the diverse disturbances and difficulties which today afflict education both at school and in the family. Ever more rapid changes in everyday existence and at work, and the associated cultural erosion, producing both mounting professionalisation of education and increasing perplexity on the part of parents, cannot be countered by the invocation of "established cultural assumptions". Playing off parents and teachers, the makers of public educational policy and educationists, against one another does not solve any problems but merely strengthens existing distrust between people who are under an obligation to co-operate for children's sake.

We view practical responsibility as entailing linking utilisation of institutional and professional education with activation of educational action on the part of both parents and the public as a whole.

31. Addresses of the Laender Ministries of Education, the Federal Ministry of Education and Science, the Secretariat of the Conference of Ministers of Education, and the Federal-Laender Commission for Educational Planning and the Advancement of Research

1. Laender Ministries of Education

Baden-Württemberg

Ministerium für Wissenschaft und Kunst
Königstraße 46
7000 Stuttgart 1
Tel.: 0711/20031

Ministerium für Kultus und Sport
Schloßplatz 4 (Neues Schloß)
7000 Stuttgart 1
Tel.: 0711/20031

Bavaria

Bayerisches Staatsministerium für Unterricht und Kultus
Salvatorstraße 2
8000 München
Tel.: 089/21861

Bayerisches Staatsministerium für Wissenschaft und Kunst
Salvatorplatz 2
8000 München
Tel.: 089/21861

Berlin (West)

Der Senator für Wissenschaft und Forschung
Bredtschneiderstraße 5–8
1000 Berlin 19
Tel.: 030/30321

Der Senator für Kulturelle Angelegenheiten
Europa Center
1000 Berlin 30
Tel.: 030/21231

Der Senator für Schulwesen, Berufsausbildung und Sport
Bredtschneiderstraße 5–8
1000 Berlin 19
Tel.: 030/30321

Bremen

Der Senator für Bildung, Wissenschaft und Kunst
Rembertiring 8–12
2800 Bremen 1
Tel.: 0421/3611

Hamburg

Freie und Hansestadt Hamburg
Behörde für Schule und Berufsbildung
Hamburger Straße 31
2000 Hamburg 76
Tel.: 040/29188

Freie und Hansestadt Hamburg
Behörde für Wissenschaft und Forschung
Hamburger Straße 37 - Postfach 5668
2000 Hamburg 76
Tel.: 040/291881 (Ext.: 29188)

Freie und Hansestadt Hamburg
Kulturbehörde
Hamburger Straße 45 - Postfach
2000 Hamburg 76
Tel.: 040/291881 (Ext.: 29188)

Hesse

Hessisches Kultusministerium
Luisenplatz 10
6200 Wiesbaden
Tel. 06121/3680

Hessisches Ministerium für Wissenschaft und Kunst
Rheinstraße 23–25
6200 Wiesbaden
Tel.: 06121/1650

Lower Saxony

Niedersächsisches Kultusministerium
Am Schiffgraben 12 - Postfach
3000 Hannover
Tel.: 0511/1201 (Ext.: 120)

Niedersächsisches Ministerium für Wissenschaft und Kunst
Prinzenstraße 14 - Postfach
3000 Hannover
Tel.: 0511/1201 (Ext.: 120)

North Rhine-Westphalia

Kultusministerium Nordrhein-Westfalen
Völklinger Straße 49a
4000 Düsseldorf
Tel.: 0211/30351 (Ext.: 3035)

Ministerium für Wissenschaft und Forschung
des Landes Nordrhein-Westfalen
Völklinger Straße 49
4000 Düsseldorf
Tel.: 0211/30321 (Ext.: 3032)

Rhineland-Palatinate

Kultusministerium Rheinland-Pfalz
Mittlere Bleiche 61 – Postfach 3220
6500 Mainz
Tel.: 06131/161 (Ext.: 16)

Saarland

Minister für Kultus, Bildung und Wissenschaft
Hohenzollernstraße 60 – Postfach 1010
6600 Saarbrücken
Tel.: 0681/5031

Schleswig-Holstein

Ministerium für Bildung, Wissenschaft, Jugend und Kultur
Düsternbrooker Weg 64–68
Landeshaus, Nebengebäude A
2300 Kiel
Tel.: 0431/5961 (Ext.: 596)

2. Federal Authorities

Der Bundesminister für Bildung und Wissenschaft
Heinemannstraße 2 – Postfach 200108
5300 Bonn 2
Tel.: 0228/571

3. Conference of Ministers of Education

Sekretariat der Ständigen Konferenz der Kultusminister der Länder
in der Bundesrepublik Deutschland
Nassestraße 8 – Postfach 2240
5300 Bonn 1
Tel.: 0228/501-1

4. **Federal-Laender Commission**

Bund-Länder-Kommission für Bildungsplanung und Forschungsförderung
Friedrich-Ebert-Allee 39
5300 Bonn 1
Tel.: 0228/54020

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